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Cincinnati Univ, Ohio Southwestern Ohio Regional Computer Ctr

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Model State Information System Training Program

Volume VII

USER'S MANUAL

Prepared for the

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Office of Water Supply
Washington, D.C.
under GSA Contract No. GS-05S-10458
Task Assignment OWS-77-01

by the

SouthWestern Ohio Regional Computer Center
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The purpose of this User's Manual is to provide the State and Regional Offices of the Environmental Protection Agency necessary information on the use of the Model State Information System. This manual was written as both a reference guide to be used after a SWORCC training team has presented its courses to the user State or Regional Offices and as an educational tool and reference for the personnel who did not attend those courses.

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From the MSIS Subcommittee of the Conference of State Sanitary Engineers, Oscar Adams, Eugene Lubiniski, Gordon Oliver, and John Saucier provided the system of checks and balances as they represented the desires of the States throughout the life of the MSIS Development, from its inception to its completion.

To all those that we have mentioned, plus the literally hundreds that we have not, we extend our sincere appreciation and thanks for your assistance and cooperation.

Bruce O. Keith
Janis Cowperthwaite
Project Managers, OWS-76-02

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FOREWORD

The SouthWestern Ohio Regional Computer Center (SWORCC), as part of the University of Cincinnati, was contracted to provide detail systems design, programming support, and related services for the development of the Model State Information System (MSIS) for the Environmental Protection Agency, Office of Water Supply, Washington, D.C. .These services have been provided in accordance with GSA Contract No. GS-05S-10030, EPA Purchase Order No. CA-6-99-2885-D.

As part of the contract, a series of eight (8) documentation manuals has been created:

1. User's Manual
2. Installation Manual
3. Operation Manual
4. Data Entry Instruction Manual
5. Keypunch Instruction Manual
6. Program Documentation, Volume I, Subsystem Descriptions
7. Program Documentation, Volume II, Exhibits
8. Program Documentation, Volume III, Data Element Dictionary

I. Purpose

The purpose of the User's Manual is to provide the State and regional offices of the Environmental Protection Agency necessary information on the use of the Model State Information System (MSIS) as designed and programmed by the SouthWestern Ohio Regional Computer Center (SWORCC) of Cincinnati, Ohio. This manual was written as both a reference guide to be used after the SWORCC training team has presented its courses to the user State or regional office and as an educational tool and reference for the personnel who did not attend those courses.

This manual will cover the following topics:

- The flexible processes used to select and sort data for reporting
- The concept of compliance cycles used for the analysis of water content
- A listing of all the Standard Error Messages contained on the Error Message Table (EMT) and for the processing options
- A general description of each of the subsystems; how to enter data and interpret output reports.

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II. Introduction

A. Developmental History

The Office of Water Supply (OWS) of the U.S. Environmental Protection Agency is responsible for implementing the provisions of the Safe Drinking Water Act of 1974. The purpose of this legislation is to ensure that water supply systems serving the public meet minimum national standards for the protection of public health. Since the intent of Congress was that the primary monitoring and enforcement functions would be implemented through the States who accepted primary enforcement responsibility (primacy), the Office of Water Supply concluded that the development of computerized information system would be of substantial benefit to those States who desired to utilize such a capability.

In consideration of this defined need, the OWS entered into a contract with American Management Systems, Inc. (AMS), of Arlington, Virginia. The purpose of this contract was the establishment of a concept underlying the informational system requirements. This resulted in the concept of a Model State Information System (MSIS). An initial report entitled, Program Evaluation Requirements, Concepts, and Plans for the EPA Safe Drinking Water Program, presented this concept and defined the minimum set of data management functions required, allowing some degree of variability, for the operation of a satisfactory enforcement program.

Ten subsystems (or functions) were originally identified as constituting the acceptable data management system. They consisted of the following:

- Public Water System Inventory Subsystem
- Water Quality Compliance Subsystem
- Variances and Exemptions Subsystem
- Laboratories Inventory Subsystem
- Enforcement Actions Subsystem
- Sanitary Survey Subsystem
- Mailing Subsystem
- Regulations Subsystem
- Federal Reporting Subsystem
- Management Reporting Subsystem

Subsequent to this initial effort, AMS prepared a feasibility study and general systems design for MSIS. A draft report entitled, Model State Information System for the Safe Drinking Water Program, Volumes I-III. dated January 12, 1976, was provided and a definitive report entitled, Design Document: Definition of Systems Requirements, dated April 15, 1976, was also provided. These documents established the draft general systems design of MSIS. Of the original ten subsystems, two, the Laboratories Inventory Subsystem and the Management Reporting Subsystem, were eliminated.

The elimination of a separate Management Reporting Subsystem was due to the variety of report formats available in other subsytems which fulfill management reporting requirements. The Laboratories Inventory Subsystem was eliminated because the small number of laboratories which will be certified for the analysis of drinking water did not justify the automation of this original feature of the MSIS. A third major change to the initial subsystem design involved the expansion of the Mailing Subsystem to include the maintenance of data on certified public water system operators. In consideration of this modification, the subsystem was renamed the Operator and Mailing Subsystem.

On June 15, 1976, American Management Systems, Inc. (AMS) delivered final versions of the following documents which were produced under contract with EPA:

- Feasibility Study for Development and Implementation of a Model State Information System for EPA's Safe Drinking Water Program.

- Introduction to the Model State Information System (MSIS).

- Model State Information System for the Safe Drinking Water Program (Volume I, Subsystem Description; Volume II, Exhibits; Volume III, Data Element Dictionary).

These documents established the final general systems design of MSIS. They included program functional definitions, file and data element definitions, sample input forms, table definitions, and sample report layouts for eight subsystems.

In March, 1976, the services of the SouthWestern Ohio Regional Computer Center (SWORCC) of the University of Cincinnati were contracted for the purpose of defining a detailed technical plan for accomplishment of detailed systems design, programming, testing/debugging and final documentation of MSIS. This plan entitled, "Implementation Plan for the Model State Information System" was delivered

to the U.S.E.P.A., Office of Water Supply in draft form on May 10, 1976, and in final form on June 10, 1976.

With the acceptance of the aforementioned implementation proposal, detail efforts as outlined in the proposal were initiated in June of 1976 by the SouthWestern Ohio Regional Computer Center. The detail systems design, programming, testing, and documentation were completed on May 6, 1977. This document, as well as the Program Documentation, Installation Manual, Operation Manual, Keypunch Instructions Manual, Data Entry Instructions Manual, and Data Element Dictionary were produced by SWORCC to fully document the delivered final version of MSIS.

B. The Model State Information System

The Model State Information System (MSIS) is a computer-based management information system for use by individual States who choose to utilize such a capability and by EPA regional offices. Its purpose is to provide the minimum data management capabilities to Water Supply administrators in the monitoring and enforcement of water quality for the protection of public health, as well as facilitating the reporting of changes in Water Supply inventory, a summary of violations, a summary of variances and exemptions, and a summary of enforcement actions as specified under the National Interim Primary Drinking Water Regulations. MSIS was designed with these two primary objectives in mind.

During the detailed systems design, the SouthWestern Ohio Regional Computer Center identified additional functional capabilities necessary for the successful operation of the MSIS. Several of these capabilities were grouped together to form a ninth subsystem which was entitled the Standard Processing Subsystem. Therefore, MSIS in its final form consists of nine separate but interrelated subsystems (eight as defined by AMS plus the Standard Processing Subsystem).

To meet minimum processing requirements, five of the nine subsystems (the mandatory subsystems) must be automated if any part of MSIS is to be automated at all. The remaining four subsystems (the optional subsystems) can be automated in any possible configuration based on the specific needs and preferences of the individual State or EPA region. The following provides a brief description of each of the MSIS subsystems.

Mandatory Subsystems

Public Water System Inventory

The purpose of this subsystem is to maintain basic descriptive data about Public Water Systems such as name, address, type of system (community or non-community), population served, number of service connections, sources of water, etc. This data will be kept on a PWS Inventory File to facilitate operation of other subsystems. The function of the PWS Inventory Subsystem is to create and maintain this file.

Water Quality Compliance Subsystem

The main purpose of this subsystem is to provide state water supply managers with the information required to monitor water quality in accordance with both Federal and State regulations. It will maintain records of water samples and lab results, identify violations of maximum contaminant

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levels and minimum sampling requirements, alert state officials to violations requiring public notification, provide optional scheduling of sampling and analysis, and produce a number of detail and summary reports of compliance.

Regulations Subsystem

The purpose of this subsystem is to create and maintain the Regulations Table which contains the National Interim Primary Drinking Water Regulations as well as the State's own regulations. Due to its small size and infrequent updating, the table will be recreated each time it is changed.

Federal Reporting Subsystem

This subsystem will produce the data required for annual reporting to EPA, including a record of all violations, variances, and exemptions ("deviations") and complete records of all PWS's that were updated in the preceding federal fiscal year. The system will retrieve all required data elements from other system files, reformat them, and create a file for reporting to EPA. By using this subsystem, and the Variances and Exemptions and Enforcement Actions Subsystem, the State can satisfy annual Federal reporting requirements without having to prepare special written documents.

Standard Processing Subsystem

The purpose of this subsystem is to support the other eight MSIS subsystems. It will create necessary table files, maintain a history file, and provide for data entry error reporting.

<u>Optional Subsystems</u>

Variances and Exemptions Subsystem

The Variances and Exemptions (V&E) subsystem maintains V&E information for two purposes. First, this type of information is required for EPA Reporting. Second, information is required for monitoring progress against compliance schedules specified in particular variances and exemptions for particular Public Water Systems. If a variance or exemption is granted, the state must prescribe a schedule for compliance and interim control measures within one year of the date it is granted. Reports produced by the V&E subsystem will allow states to monitor adherence to the schedule.

Enforcement Actions Subsystem

The purpose of this subsystem is to provide the State with a method for collection, maintenance, and processing of data related to actions performed in connection with enforcing the State's own regulations or the Federal Regulations. Types of actions include warning letters, permit revision or suspension, and legal action (lawsuits). This data can then be used for evaluating the effectiveness of different types of enforcement actions and can also be used in case tracking.

Sanitary Survey Subsystem

The purpose of this system is to provide a method of scheduling Public Water Systems for periodic sanitary surveys, in order to effectively utilize a limited number of trained manpower. The scheduling algorithm selects PWS's for surveys based upon PWS type (community or non-community), size of population served, compliance history, number of violations, source of water (ground or surface), and date of last survey. States may assign varying weights to each factor to reflect their own special priorities and resource constraints.

Operator and Mailing Subsystem

The Operator and Mailing Subsystem is designed for two purposes: first, to provide management of data concerning certified operators, and second, to provide the State with the capability to manage a mailing distribution list for mailing material to local governments, cities, consulting engineers, etc. Since the mailing list and operator data requirements are essentially the same, these two functions are combined in a single subsystem.

III. User Defined Selection of Information

The user must have the ability to select certain types of records for examination and reporting. MSIS provides this ability in special program modules through the use of two processing options: SEL1 and SEL2. The use of these options is standard throughout MSIS, although each subsystem which allows these options has its own input forms to use. (See Exhibits and Data Entry Instructions for full details on each.)

First, it is necessary to become familiar with the SEL1 and SEL2 forms and the processing logic they represent. (See figures III.1 and III.2) The example of the SEL1 form actually represents thirteen cards, one for each line, where the SEL2 form represents only one card. They are tied together logically by the Data Element Logic ID Number, columns 30-31 in the SEL1 card, and the pre-printed numbers on the SEL2 form. A maximum of thirty-five (35) SEL1 cards are allowed, and each must have a unique Data Element Logic ID Number from 01-35. If there is any duplication, the program will not run. A maximum of thirty-five (35) SEL2 cards is also allowed.

There are two logical relationships which occur while using SEL2 cards. For example, say there are three logical conditions the user has to determine whether a record should be selected. Using the logical construct of "AND", the user might want the basic condition of : if condition A AND condition B AND condition C is true, select the record. The condition would be coded across one SEL2 form; logic ID 01 would represent condition A; logic ID 02, condition B, and so on. Now, when using the logical construct of "OR"; the basic condition might be: if condition A OR condition B OR conditon C is true, select the record. The condition would be coded on multiple SEL2 forms; logic ID 01 would be coded on multiple SEL2 forms; logic ID 01 would represent condition A and would be coded on one SEL2 form. For each OR condition, an additional SEL2 form would be coded. For this example, there would be 3 SEL2 forms. Some practical examples will follow.

When filling out the SEL1 form, make sure that the Data Element Comparative Value is left justified, i.e., start with the left-most block. As a general rule, use no more blocks than the maximum length of the data element as it appears on file. There are, however, several exceptions to that rule. Dates should be entered as a six position field in the format MMDDYY where MM = month, DD = day, and YY = the last two digits of the year. Dates appear on the file as five position Julian format dates but the programs will automatically convert the format of your input date to make the comparison. Turbidity units and air temperature allow

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for one decimal position. Maximum contaminant levels (MCL's) allow up to 15 positions: 5 whole numbers, a decimal point and nine decimal places. The decimal should be coded as part of the value in the Comparative Value. In either case, the programs will be able to make any adjustments necessary to conform to the data which is on file. Again, it must be noted that the Logic ID Number must be unique, no two SEL1 cards can have the same number.

On the SEL2 form, use only the Relational Symbols that are defined in the heading of the form. Any other symbols will stop the run of the program.

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PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID	DATA ELEMENT MNEMONIC NAME	DATA ELEMENT COMPARATIVE VALUE	DATA ELEMENT LOGIC ID NO.
S E L 1			
1-4	5-14	15-29	30-31
DUP 1 - 4			
.			
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.			
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Fig. III.1

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MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

PWSI.108

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN GT = GREATER THAN NG = NOT GREATER THAN
EQ = EQUAL NL = NOT LESS THAN NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
S E L 2 (1-4)	01	(5-6)	02	(7-8)	03	(9-10)	04	(11-12)
	05	(13-14)	06	(15-16)	07	(17-18)	08	(19-20)
	09	(21-22)	10	(23-24)	11	(25-26)	12	(27-28)
	13	(29-30)	14	(31-32)	15	(33-34)	16	(35-36)
	17	(37-38)	18	(39-40)	19	(41-42)	20	(43-44)
	21	(45-46)	22	(47-48)	23	(49-50)	24	(51-52)
	25	(53-54)	26	(55-56)	27	(57-58)	28	(59-60)
	29	(61-62)	30	(63-64)	31	(65-66)	32	(67-68)
	33	(69-70)	34	(71-72)	35	(73-74)		

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Fig. III.2

As a simple example, look at figures III.3 and III.4. The example desires to select all community Public Water Systems (PWS's) in the Cincinnati area. The plant type is coded in the Data Element Mnemonic Name and the Comparative Value of "C" is coded. This information was found in the Data Element Dictionary. The relational logic as coded would be: select all records which have a plant type equal to "C" AND an area city equal to "CINCINNATI". Remember the AND condition occurs across the SEL2 card. Each Relation Symbol corresponds to the Logic ID Number as recorded in the SEL1 cards.

By adding another line to SEL1 as in figure III.5 and an additional SEL2 form, figure III.6, the relational logic has been altered to be: select all records which have a plant type equal to "C" AND an area city equal to "CINCINNATI" OR "TOLEDO".

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MODEL STATE INFORMATION SYSTEM

PWSI.107

PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID 1-4	DATA ELEMENT MNEMONIC NAME 5-14	DATA ELEMENT COMPARATIVE VALUE 15-29	DATA ELEMENT LOGIC ID NO. 30-31
SEL1	PW-PL-TYPE	C	01
DUP 1 - 4	PW-PL-ACTY	CINCINNATI	02

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Fig. III.3

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SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN GT = GREATER THAN NG = NOT GREATER THAN
EQ = EQUAL NL = NOT LESS THAN NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
SEL2	01	EQ	02	EQ	03		04	
1-4		5-6		7-8		9-10		11-12
	05		06		07		08	
		13-14		15-16		17-18		19-20
	09		10		11		12	
		21-22		23-24		25-26		27-28
	13		14		15		16	
		29-30		31-32		33-34		35-36
	17		18		19		20	
		37-38		39-40		41-42		43-44
	21		22		23		24	
		45-46		47-48		49-50		51-52
	25		26		27		28	
		53-54		55-56		57-58		59-60
	29		30		31		32	
		61-62		63-64		65-66		67-68
	33		34		35			
		69-70		71-72		73-74		

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Fig. III.4

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PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID (1-4)	DATA ELEMENT MNEMONIC NAME (5-14)	DATA ELEMENT COMPARATIVE VALUE (15-29)	DATA ELEMENT LOGIC ID NO. (30-31)
SELI	PW-PL-TYPE	C	01
DUP 1 - 4	PW-PL-ACTY	CINCINNATI	02
	PW-PL-ACTY	TOLEDO	03

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Fig. III.5

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PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
SELZ (1-4)	01	EQ (5-6)	02	(7-8)	03	EQ (9-10)	04	(11-12)
	05	(13-14)	06	(15-16)	07	(17-18)	08	(19-20)
	09	(21-22)	10	(23-24)	11	(25-26)	12	(27-28)
	13	(29-30)	14	(31-32)	15	(33-34)	16	(35-36)
	17	(37-38)	18	(39-40)	19	(41-42)	20	(43-44)
	21	(45-46)	22	(47-48)	23	(49-50)	24	(51-52)
	25	(53-54)	26	(55-56)	27	(57-58)	28	(59-60)
	29	(61-62)	30	(63-64)	31	(65-66)	32	(67-68)
	33	(69-70)	34	(71-72)	35	(73-74)		

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Fig. III.6

It should be noted that when using the "NX" relation symbol, care should be taken when coding the Comparative Value field. If a field is considered non-existant and is an alphanumeric field, its initialized value will be blanks. So the Comparative Value should be left blank. (See figure III.7, Logic ID Number 01). Likewise, if the field is numeric, zeros should be coded in the Comparative Value. (See figure III.7, Logic ID Number 02). The type of field can be determined from the Data Element Dictionary. If the "Data Type" field contains a "A/N", that means that the field is alphanumeric. If it contains an "N", it is a numeric field. The relational logic for this example is: select all records for which the owner name is non-existant AND the last survey date is non-existant.

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PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

PWSI.107

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID (1-4)	DATA ELEMENT MNEMONIC NAME (5-14)	DATA ELEMENT COMPARATIVE VALUE (15-29)	DATA ELEMENT LOGIC ID NO. (30-31)
SELI	PW-OWNA		01
DUP 1 - 4	PW-PL-SURV	000000	02

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Fig III 7

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PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN GT = GREATER THAN NG = NOT GREATER THAN
EQ = EQUAL NL = NOT LESS THAN NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
S E L 2 (1-4)	01	N X (5-6)	02	N X (7-8)	03	(9-10)	04	(11-12)
	05	(13-14)	06	(15-16)	07	(17-18)	08	(19-20)
	09	(21-22)	10	(23-24)	11	(25-26)	12	(27-28)
	13	(29-30)	14	(31-32)	15	(33-34)	16	(35-36)
	17	(37-38)	18	(39-40)	19	(41-42)	20	(43-44)
	21	(45-46)	22	(47-48)	23	(49-50)	24	(51-52)
	25	(53-54)	26	(55-56)	27	(57-58)	28	(59-60)
	29	(61-62)	30	(63-64)	31	(65-66)	32	(67-68)
	33	(69-70)	34	(71-72)	35	(73-74)		

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Fig III.8

Now for a more complex example. First look at figures III.9 through III.12. See if you can determine what the relational logic is. Remember that an "AND" relation goes across one SEL2 card and an "OR" relation goes from one SEL2 card to the next. The relational logic is: select all records for which the PWS ID is "greater than" 0000001 AND the emergency capacity is "less than" 2,000,000 gallons, OR the plant type is "equal" to "N" for non-community AND the emergency capacity is "greater than" 100,000 gallons, OR the emergency capacity is "less than" 2,000,000 gallons AND the last survey date is "less than" or previous to 010177 AND the plant type is "equal" to "N" for non-community.

There are several situations of note in this example. First, see that the emergency capacity appears twice on the SEL1 form. This is a valid situation because two different Comparative Values are being used in different logic sequences. Second, see that two of the logic ID Numbers have been used twice in different logic sequences. This too is a valid situation because of the use of the OR condition between SEL2 cards. Third, note that we have three entirely independent conditions, any of which will cause the record to be selected if the condition is met.

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SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID 1-4	DATA ELEMENT MNEMONIC NAME 5-14	DATA ELEMENT COMPARATIVE VALUE 15-29	DATA ELEMENT LOGIC ID NO. 30-31
SEL1	PW-ID	0000001	01
DUP 1 - 4	PW-PL-EMER	0002000000000	02
.	PW-PL-TYPE	N	03
.	PW-PL-EMER	0001000000	04
.	PW-PL-SURV	010177	05
.			
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Fig III.9

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SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN, GT = GREATER THAN, NG = NOT GREATER THAN
EQ = EQUAL, NL = NOT LESS THAN, NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
SELL2 (1-4)	01	GT (5-6)	02	LT (7-8)	03	(9-10)	04	(11-12)
	05	(13-14)	06	(15-16)	07	(17-18)	08	(19-20)
	09	(21-22)	10	(23-24)	11	(25-26)	12	(27-28)
	13	(29-30)	14	(31-32)	15	(33-34)	16	(35-36)
	17	(37-38)	18	(39-40)	19	(41-42)	20	(43-44)
	21	(45-46)	22	(47-48)	23	(49-50)	24	(51-52)
	25	(53-54)	26	(55-56)	27	(57-58)	28	(59-60)
	29	(61-62)	30	(63-64)	31	(65-66)	32	(67-68)
	33	(69-70)	34	(71-72)	35	(73-74)		

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Fig. III.10

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SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN GT = GREATER THAN NG = NOT GREATER THAN
EQ = EQUAL NL = NOT LESS THAN NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
SEL2 (1-4)	01	(5-6)	02	(7-8)	03	EQ (9-10)	04	GT (11-12)
	05	(13-14)	06	(15-16)	07	(17-18)	08	(19-20)
	09	(21-22)	10	(23-24)	11	(25-26)	12	(27-28)
	13	(29-30)	14	(31-32)	15	(33-34)	16	(35-36)
	17	(37-38)	18	(39-40)	19	(41-42)	20	(43-44)
	21	(45-46)	22	(47-48)	23	(49-50)	24	(51-52)
	25	(53-54)	26	(55-56)	27	(57-58)	28	(59-60)
	29	(61-62)	30	(63-64)	31	(65-66)	32	(67-68)
	33	(69-70)	34	(71-72)	35	(73-74)		

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Fig III.11

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SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN GT = GREATER THAN NG = NOT GREATER THAN
EQ = EQUAL NL = NOT LESS THAN NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
SELL2 (1-4)	01	[ ] 5-6	02	LT 7-8	03	EQ 9-10	04	[ ] 11-12
	05	[ ] 13-14	06	[ ] 15-16	07	[ ] 17-18	08	[ ] 19-20
	09	[ ] 21-22	10	[ ] 23-24	11	[ ] 25-26	12	[ ] 27-28
	13	[ ] 29-30	14	[ ] 31-32	15	[ ] 33-34	16	[ ] 35-36
	17	[ ] 37-38	18	[ ] 39-40	19	[ ] 41-42	20	[ ] 43-44
	21	[ ] 45-46	22	[ ] 47-48	23	[ ] 49-50	24	[ ] 51-52
	25	[ ] 53-54	26	[ ] 55-56	27	[ ] 57-58	28	[ ] 59-60
	29	[ ] 61-62	30	[ ] 63-64	31	[ ] 65-66	32	[ ] 67-68
	33	[ ] 69-70	34	[ ] 71-72	35	[ ] 73-74		

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Fig III.12

As a final example, consider the situation of selecting a range of values. Under normal circumstances, the field would be entered twice in the mnemonic name columns and an upper and lower range entered in the comparative values with the appropriate relational symbols used on the SEL2 card. However, certain problems arise when you are working with fields that have multiple occurrences within a record, such as the Variances and Exemptions Contaminant ID does within the PWF record.

First, let us group the following figures to illustrate the different situations that may arise. Group figures III.13 and III.14 as group one, figures III.13 and III.15 as group two, and III.13 and III.16 as group three. Then, let us use the following value groups for the contaminant ID fields which occur a possibility of four times in each PWF record:

Value Group One	Value Group Two	Value Group Three
3010	4000	3010
4000	4005	4005
4010	4010	4010
4020	4020	4020

Now, using the group one figures as an example, let us demonstrate what will happen with the three value groups. First, with Value Group One, the record would be selected because there is a value "equal" to 4000 AND there is a value "equal" to 4010. The record for Value Group Two would also be selected, and for the same reason. However, with Value Group Three, the record would not be selected because there is no value 4000.

Next, look at the group two figures. Here we are looking for an outside range of numbers. The record for Value Group One would be selected because there is a value "less than" 4000 AND there is a value "greater than" 4010. With Value Group Two, the record would not be selected because there is no value "less than" 4000. Using Value Group Three, the record would be selected because both conditions would be met.

Finally, look at figure group three. Here, we are looking for an inside range of numbers. And this is where our problem lies. With Value Group One, the record would be selected. But look closer at the results. True, there are values "greater than" 4000, AND there are values "less than" 4010. But there is actually no value between 4000 and 4010. With Value Groups Two and Three, there are values that fall within the range. But the entire situation is victim to circumstance. Therefore, the results obtained when

selecting a data element based on an inside range that occurs more than once is questionable.

In summary, then, follow these basic rules when filling out the SEL1 and SEL2 forms:

- Data Element Mnemonic Name must be spelled correctly. Refer to Data Element Dictionary or Record Description for correct spelling.

- Comparative Value must be left justified and not longer than the maximum data length as recorded in the Data Element Dictionary with the exception of Turbidity Units, Air Temperature, MCL's which must have their decimal points coded, and dates which will be coded as six digits

- Data Element Logic ID Number must be unique

- Use only the six relation symbols as defined in the heading of the SEL2 form

- "AND" logical relationship exists across the SEL2 card

- "OR" logical relationship exists from one SEL2 card to the next

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PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID	DATA ELEMENT MNEMONIC NAME	DATA ELEMENT COMPARATIVE VALUE	DATA ELEMENT LOGIC ID NO.
SELI	PW-VE-CTAM	4000	01
1-4	5-14	15-29	30-31
DUP 1 - 4	PW-VE-CTAM	4010	02

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Fig III.13

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PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN, EQ = EQUAL, GT = GREATER THAN, NL = NOT LESS THAN, NG = NOT GREATER THAN, NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
SELZ (1-4)	01	EQ (5-6)	02	EQ (7-8)	03	□□ (9-10)	04	□□ (11-12)
	05	□□ (13-14)	06	□□ (15-16)	07	□□ (17-18)	08	□□ (19-20)
	09	□□ (21-22)	10	□□ (23-24)	11	□□ (25-26)	12	□□ (27-28)
	13	□□ (29-30)	14	□□ (31-32)	15	□□ (33-34)	16	□□ (35-36)
	17	□□ (37-38)	18	□□ (39-40)	19	□□ (41-42)	20	□□ (43-44)
	21	□□ (45-46)	22	□□ (47-48)	23	□□ (49-50)	24	□□ (51-52)
	25	□□ (53-54)	26	□□ (55-56)	27	□□ (57-58)	28	□□ (59-60)
	29	□□ (61-62)	30	□□ (63-64)	31	□□ (65-66)	32	□□ (67-68)
	33	□□ (69-70)	34	□□ (71-72)	35	□□ (73-74)		

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Fig. III.14

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SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
SELZ (1-4)	01	LT (5-6)	02	GT (7-8)	03	(9-10)	04	(11-12)
	05	(13-14)	06	(15-16)	07	(17-18)	08	(19-20)
	09	(21-22)	10	(23-24)	11	(25-26)	12	(27-28)
	13	(29-30)	14	(31-32)	15	(33-34)	16	(35-36)
	17	(37-38)	18	(39-40)	19	(41-42)	20	(43-44)
	21	(45-46)	22	(47-48)	23	(49-50)	24	(51-52)
	25	(53-54)	26	(55-56)	27	(57-58)	28	(59-60)
	29	(61-62)	30	(63-64)	31	(65-66)	32	(67-68)
	33	(69-70)	34	(71-72)	35	(73-74)		

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Fig. III.15

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PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN GT = GREATER THAN NG = NOT GREATER THAN
EQ = EQUAL NL = NOT LESS THAN NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
SELL2 1-4	01	GT 5-6	02	LT 7-8	03	9-10	04	11-12
	05	13-14	06	15-16	07	17-18	08	19-20
	09	21-22	10	23-24	11	25-26	12	27-28
	13	29-30	14	31-32	15	33-34	16	35-36
	17	37-38	18	39-40	19	41-42	20	43-44
	21	45-46	22	47-48	23	49-50	24	51-52
	25	53-54	26	55-56	27	57-58	28	59-60
	29	61-62	30	63-64	31	65-66	32	67-68
	33	69-70	34	71-72	35	73-74		

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Fig. III.16

IV. User Defined Report Sequencing

Many of the reports produced by MSIS have a processing option called SORT. It gives the user the option of sequencing a report in a manner other than the natural sequence of the file from which the information is being obtained. If a report contains such an option, there will be a standard input form associated with that report which the user must fill out and submit with the job request in order to have the report in the requested sequence. (See Exhibits Appendix G for a complete list of reports which may be sorted according to the user defined sequence.)

Computer sorts are performed using a "sort key". This key can be defined as a body of information, in order of decreasing importance, used to sequence a greater body of information. The various data elements contained within that sort key are ordered in importance, major to minor, by the user. Therefore, the major key appears first within the sort key followed by fields, in their order of decreasing importance, down to the minor key. This terminology is important to understand in learning how to fill out the input form required to request a resequencing of a report.

Secondly, it is important to understand that the sorts are limited in such a way that the information contained in the sort key cannot exceed thirty (30) characters in their combined lengths. Therefore, when a user is filling out one of the input forms, he must use either a record description or the Data Element Dictionary (DED) to determine the lengths and mnemonic names of the data elements with which he is working. There is one exception to the rule of combining data lengths; if a data element contains more than fifteen (15) characters, only the first fifteen characters will be used in creating the sort key.

All of the input forms for the various reports have the same general format. When filling out the form, order the sort key fields from major to minor significance down the page starting with the number 01. This is a must because the column labeled "Sort Priority" will be used by the computer program to determine major (01) to minor (maximum of 30) significance. The user can fill out a maximum of six input forms per report, of course, as long as the length of the sort key requested is less than 31.

Additionally, each data element can be ordered in either ascending or descending sequence. When working with a data element that could potentially be alphabetic or numeric, it should also be noted that with IBM hardware, numbers are considered "higher" than alphabetic characters. Therefore a number would sort higher than a letter. With many other companies, however, the reverse is true. If your hardware

is other than IBM, it is recommended that you ask your programming staff about the "collating sequence" of your computer so that you can make the proper decision when ordering your data.

The following table should be useful in helping the user determine if he would like a report from a certain file to be sequenced in a manner other than its natural sequence.

FILE NAME	NATURAL SEQUENCE
Enforcement Actions File (EAF)	Case ID
Operator & Mailing File (OMF)	Addressee ID
Public History File (PHF)	PWS-ID
Periodic Sample File (PSF)	PWS-ID; Contaminant ID; Location Code; Sample type, date, time and key; Record Type
Public Water File (PWF)	PWS-ID
Sample Analysis File (SAF)	PWS-ID; Contaminant ID; location Code; Sample type, date, time and key; Record Type
Standard History File (SHF)	File ID, Record ID, Data Element Catalogue Number, Current Update Date
Variances and Exemptions File (VEF)	Variances and Exemptions ID
Violations File (VIF)	Violation ID

NOTE: The above files are not a complete list of permanent files, but the only permanent files for which a sort may be done.

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MODEL STATE INFORMATION SYSTEM
STANDARD PROCESSING SUBSYSTEM

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STANDARD HISTORY FILE SELECTION

SORT OPTIONS FOR JOB _____

CARD ID	SORT SEQUENCE	MNEMONIC NAME OF DATA ELEMENT	SORT MODE	
S O R T 1-4	5-6	7-16	17	A=ASCENDING D=DESCENDING
	18-19	20-29	30	A=ASCENDING D=DESCENDING
	31-32	33-42	43	A=ASCENDING D=DESCENDING
	44-45	46-55	56	A=ASCENDING D=DESCENDING
	57-58	59-68	69	A=ASCENDING D=DESCENDING

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Fig. IV.1

V. Restart Printing for Pre-printed Forms

During the printing of preprinted forms, such as turnaround documents for MSIS, certain problems may arise that require the re-printing of certain documents. For example, the printer may jam causing forms to be lost, the form may not be aligned correctly for printing, or there may be an error in the printing of the pre-printed form itself. In anticipation of these problems, it is possible to restart the printing of a pre-printed form from a position other than the beginning of the file. A RESTART processing option was developed for this purpose. All that is necessary for the user to do is code the proper restart option with the sequence number that should begin the printing again. For instance, for the PWS Record Creation and Maintenance Form, code the PWS-ID of the first PWS you want to restart with. A table is provided below for the form, program and RESTART options which are allowable.

Form Number	Form Name	Program	RESTART
PWSI.400-401	Public Water File Record Creation and Maintenance Form (pages 1 and 2)	PWSI060	PWSI.105
WAQC.400	Chemical or Radiological Analysis Input Form	WAQC150	WAQC.125
WAQC.401	Bacteriological or Turbidity Analysis Input Form	WAQC170	WAQC.125
WAQC.402	Bacteriological or Turbidity Summary Analysis Input Form	WAQC180	WAQC.125

VI. Compliance Cycles

With ever increasing requests for higher standards of drinking water, it is anticipated that the new Federal Regulations will increase the number of samples currently required every month for bacteriological and turbidity analysis. To more evenly distribute the workload of the user in processing the analyses made by each of its public water systems, MSIS possesses the detailed concept of compliance cycles.

Consider the case where each of the Public Water Systems (PWS's) had similar compliance timetables. There would be a congestion of data at month end or wherever the similarity may lie. To avoid such a situation, the user must have the ability to divide the PWS's in such a way as to distribute the data input across the month. It is with this idea in mind that this concept was developed.

A compliance cycle can be defined as the period of time, in days, that is required by law, between one test of water quality and another to see if they comply with federal and state standards. A compliance cycle is a monthly cycle consisting of 28 days. The value that is entered in the compliance cycle field, as in Public Water File (PWF), represents the day of the month on which the compliance cycle is based. A default value has been developed which is '01', or the first day of the month.

As an example, let us consider the user who has an inventory of 3,000 community and 10,000 non-comunity water supplies. If he were to use the default value of the compliance cycle, he would be swamped with work every month end. So if the user were to divide his inventory into four groups of 750 community and 2,500 non-community water supplies and set their respective compliance cycles at '07', '14', '21', and '28' for monthly monitoring, the workload at his processing center would be more evenly distributed over the month. The user could input sampling data as it was received and summarize it periodically as determined by the state schedule.

It is therefore apparent that the use of the compliance cycle concept can be of great benefit to the user. But it is left to the discretion of the user how he would desire to use it, if at all.

VII. ERROR MESSAGE TABLE (EMT)

A. Introduction

When a subsystem is in the process of building the Standard Error File (SEF), usually during editing input transactions, codes are used to identify what edit error took place. Then, in Standard Error Processing program module MSIS010, the codes are matched to the Error Message Table (EMT) to obtain the appropriate error message to be printed on the Standard Error Report.

The error message codes are three digit numbers; 001 thru 999. Numbers 001 thru 100 are used for errors which caused an entire transaction to be rejected. Numbers 101 thru 400 are used as warning messages in cases where the value for a single input field is questionable but is still used as valid input. Numbers 401 thru 900 are used when the value of a specific input field is invalid and is not used in the update process. Numbers 901 thru 999 are currently reserved for future use by the state or regional offices at their discretion.

Summary Code Value Assignments

001-100	REJECT
101-400	WARNING
401-900	INVALID
901-999	reserved for future use

B. ERROR MESSAGE TABLE

Error Code	Error Message
001	REJECT-INVALID RECORD-ID
002	REJECT-RECORD ALREADY EXISTS
003	REJECT-NO MATCHING RECORD-ID
004	REJECT-RECORD IS INCOMPLETE
005	REJECT-CONTAM ID INVALID
006	REJECT-STATE VALUE TOO LOW
007	REJECT-STATE VALUE TOO HIGH
008	REJECT-FED. RECORD MISSING
009	REJECT-REC. HAS INVALID DATA
010	REJECT-NOT NUMERIC
011	REJECT-VALUE UNACCEPTABLE
012	REJECT-VALUE TOO HIGH
013	REJECT-VALUE TOO LOW
014	REJECT-NOT IN CODE TABLE
015	REJECT-PWS ID INVALID
016	REJECT-LAB NOT AUTHORIZED
017	REJECT-INVALID TRANSACT CODE

018	REJECT-REQUIRED DATA MISSING
019	REJECT-NO MATCHING MILESTONE
020	REJECT-INVALID DELETE CODE
021	REJECT-INVALID CREATE CODE
022	REJECT-TOO MANY VIOLATIONS
023	REJECT-NO MATCHING VIOLATION
024	REJECT-INVALID REQUEST CODE
025	REJECT-TOO MANY MILESTONES
026	REJECT-INVALID OCCURRENCE
027	REJECT-METHOD NOT ON TABLE
028	REJECT-DUPLICATE MILESTONE
029	REJECT-ILLEGAL DELETION
030	REJECT-ASSOC VALUE MISSING
031	REJECT-TOO MANY CONTAMINANTS
032	REJECT-NO MATCHING CONTAMINANT
033	REJECT-INVALID DATE
034	REJECT-DUPLICATE LAB-ID
035	REJECT-REC. ALREADY ENTERED
101	WARNING-CHECK ELEMENT VALUE
102	WARNING-ELEMENT EXCEEDS MAX
103	WARNING-ELEMENT BELOW MIN
104	WARNING-NOT IN CODE TABLE
105	WARNING-NOT IN DATA ELE TBL
106	WARNING-DEFAULT VALUE USED
401	INVALID-NOT NUMERIC
402	INVALID-NOT IN CODE TABLE
403	INVALID-NOT A VALID DATE
404	INVALID-ELEMENT EXCEEDS MAX
405	INVALID-ELEMENT BELOW MIN
406	INVALID-ELEMENT MISSING
407	INVALID-VALUE UNACCEPTABLE
408	INVALID-NOT ALPHABETIC
409	INVALID-NOT ON PUB WATER TBL
410	INVALID-ASSOC VALUE MISSING

C. Recommended User Action

MESSAGE: REJECT - INVALID RECORD-ID ERROR CODE: 001
USER ACTION: the record ID does not correspond to the requirements set forth for the file. Refer to the DED for requirements and re-enter transaction.

MESSAGE: REJECT- RECORD ALREADY EXISTS ERROR CODE: 002
USER ACTION: there is already a record on file with the same ID. Check to see if there was an error in keying the transaction. If not, enter a unique record ID and re-enter the transaction.

MESSAGE: REJECT - NO MATCHING RECORD-ID ERROR CODE: 003
USER ACTION: this should only occur for a change or delete transaction. There is no record on file which corresponds to the record ID that was entered. Correct the ID number and re-enter the transaction.

MESSAGE: REJECT - RECORD IS INCOMPLETE ERROR CODE: 004
USER ACTION: the record does not contain all the data elements required for MSIS processing. Refer to Section XI of this manual to determine requirements and re-enter the transaction.

MESSAGE: REJECT - CONTAM ID INVALID ERROR CODE: 005
USER ACTION: the record contains a contaminant ID that is not on the MSIS CVT. If it is an error, correct it and re-enter the transaction. If it is in fact a new contaminant ID, the MSIS CVT must be recreated before the transaction will be accepted (use program MSIS030).

MESSAGE: REJECT - STATE VALUE TOO LOW ERROR CODE: 006
USER ACTION: the value for a state regulation entry is lower than that which is required by law. Correct the entry and re-enter the transaction.

MESSAGE: REJECT - STATE VALUE TOO HIGH ERROR CODE: 007
USER ACTION: the value for a state regulation entry is higher than that which is required by law. Correct the entry and re-enter the transaction.

MESSAGE: REJECT - FED. RECORD MISSING ERROR CODE: 008
USER ACTION: for each state regulation there must be a corresponding federal regulation. Code the federal regulation and include it with the transactions.

MESSAGE: REJECT - REC. HAS INVALID DATA ERROR CODE: 009
USER ACTION: the record contains invalid data. Check the Data Element Dictionary (DED), re-code the transaction and re-enter it.

MESSAGE: REJECT - NOT NUMERIC ERROR CODE: 010
USER ACTION: a field that must be numeric is not numeric and has caused the transaction to reject. Correct the field and re-enter the transaction.

MESSAGE: REJECT - VALUE UNACCEPTABLE ERROR CODE: 011
USER ACTION: according to the criteria in the Data Element Dictionary (DED) the value entered is not acceptable. Correct the value and re-enter the transaction.

MESSAGE: REJECT - VALUE TOO HIGH ERROR CODE: 012
USER ACTION: according to the criteria in the Data Element Dictionary (DED), the value entered was higher than acceptable. Correct the value and re-enter the transaction.

MESSAGE: REJECT - VALUE TOO LOW ERROR CODE: 013
USER ACTION: according to the criteria in the Data Element Dictionary (DED), the value entered was lower than acceptable. Correct the value and re-enter the transaction.

MESSAGE: REJECT - NOT IN CODE TABLE ERROR CODE: 014
USER ACTION: according to the respective Code Value Table (CVT), the value entered was not in the table. Correct the value and re-enter the transaction. If it is a new value, the CVT must be recreated using MSIS030.

MESSAGE: REJECT - PWS ID INVALID ERROR CODE: 015
USER ACTION: the PWS does not exist. Correct and re-enter the transaction.

MESSAGE: REJECT - LAB NOT AUTHORIZED ERROR CODE: 016
USER ACTION: either the lab does not appear on the LBT or it does appear but is not authorized to do the specified type of analysis. Correct and re-enter the transaction.

MESSAGE: REJECT - INVALID TRANSACT CODE ERROR CODE: 017
USER ACTION: the transaction code is invalid for the file being processed. Correct and re-enter the transaction.

MESSAGE: REJECT - REQUIRED DATA MISSING ERROR CODE: 018
USER ACTION: data which is required for MSIS processing was not entered in this transaction. Refer to Section XI of this manual to determine requirements and re-enter the transaction.

MESSAGE: REJECT - NO MATCHING MILESTONE ERROR CODE: 019
USER ACTION: there is no milestone to match this transaction. Correct and re-enter the transaction.

MESSAGE: REJECT - INVALID DELETE CODE ERROR CODE: 020
USER ACTION: the delete code for this transaction is invalid for the file being processed. Correct and re-enter the transaction.

MESSAGE: REJECT - INVALID CREATE CODE ERROR CODE: 021
USER ACTION: the create code for this transaction is invalid for the file being processed. Correct and re-enter the transaction.

MESSAGE: REJECT - TOO MANY VIOLATIONS ERROR CODE: 022
USER ACTION: a maximum of ten specific violations is maintained for a single Enforcement Actions record. Correct and re-enter transaction if in error.

MESSAGE: REJECT - NO MATCHING VIOLATION ERROR CODE: 023
USER ACTION: there is no matching violation for this transaction. Correct and re-enter the transaction.

MESSAGE: REJECT - INVALID REQUEST CODE ERROR CODE: 024
USER ACTION: the request code for this transaction is invalid for the file being processed. Correct and re-enter the transaction.

MESSAGE: REJECT - TOO MANY MILESTONES ERROR CODE: 025
USER ACTION: a maximum of ten milestones is maintained for a single variance or exemption record. Correct and re-enter the transaction if in error.

MESSAGE: REJECT - INVALID OCCURRENCE ERROR CODE: 026
USER ACTION: there are a specific number of occurrences allowed for this field on this transaction. Consult the input form for this field to ascertain the maximum allowed. Correct and re-enter the transaction.

MESSAGE: REJECT - METHOD NOT ON TABLE ERROR CODE: 027
USER ACTION: the analysis method specified on the transaction is not on the LBT or is not authorized for the laboratory specified. Correct and re-enter the transaction.

MESSAGE: REJECT - DUPLICATE MILESTONE ERROR CODE: 028
USER ACTION: there is already a milestone on file with the same number and target date. Correct and re-enter the transaction if it is not actually a duplicate.

MESSAGE: REJECT - ILLEGAL DELETION ERROR CODE: 029
USER ACTION: a deletion transaction is invalid for this record on the file. Do not re-enter transaction.

MESSAGE: REJECT - ASSOC VALUE MISSING ERROR CODE: 030
USER ACTION: there is a field which has been entered which requires another field to be entered at the same time. The associated field is invalid or missing. Correct and re-enter the transaction.

MESSAGE: REJECT - TOO MANY CONTAMINANTS ERROR CODE: 031
USER ACTION: there is a specific number of contaminants allowed for certain files. Consult the Data Element Dictionary (DED) for this specific field to ascertain the maximum allowed. Correct and re-enter the transaction if possible.

MESSAGE: REJECT - NO MATCHING CONTAMINANT ERROR CODE: 032
USER ACTION: the contaminant number and target date in the transaction does not match the ones on file. Correct and re-enter the transaction.

MESSAGE: REJECT - INVALID DATE ERROR CODE: 033
USER ACTION: the date entered is invalid; the month is not in the range 01 to 12, the day is not in a range valid to its month, or the year is not numeric. Correct and re-enter the transaction.

MESSAGE: REJECT - DUPLICATE LAB-ID ERROR CODE: 034
USER ACTION: there is already a record on the lab table identical to this transaction. Discard the transaction.

MESSAGE: REJECT - REC. ALREADY ENTERED ERROR CODE: 035
USER ACTION: there is already a record on the respective file identical to this transaction. Discard the transaction.

MESSAGE: WARNING - CHECK ELEMENT VALUE ERROR CODE: 101
USER ACTION: the field was accepted for update but may be invalid. Correct and re-enter only if necessary.

MESSAGE: WARNING - ELEMENT EXCEEDS MAX ERROR CODE: 102
USER ACTION: the data element exceeds an established maximum value but has been accepted for update. Correct and re-enter only if necessary.

MESSAGE: WARNING - ELEMENT BELOW MIN ERROR CODE: 103
USER ACTION: the data element is below an established minimum value but has been accepted for update. Correct and re-enter only if necessary.

MESSAGE: WARNING - NOT IN CODE TABLE ERROR CODE: 104
USER ACTION: the data element is not on the Code Value Table (CVT) for the respective file but has been accepted for update. Correct and re-enter only if necessary.

MESSAGE: WARNING - NOT IN DATA ELE TBL ERROR CODE: 105
USER ACTION: the data element is not on the DET but has been accepted for update on the history file. Correct and re-enter only if necessary.

MESSAGE: WARNING - DEFAULT VALUE USED ERROR CODE: 106
USER ACTION: the value entered was invalid so the default value was used instead. Consult the Data Element Dictionary (DED) to ascertain the default value. If it is not acceptable, correct and re-enter the transaction.

MESSAGE: INVALID - NOT NUMERIC ERROR CODE: 401
USER ACTION: the value entered was not numeric; however, the rest of the transaction not in error was accepted. Correct and re-enter the portion of the transaction which was in error.

MESSAGE: INVALID - NOT IN CODE TABLE ERROR CODE: 402
USER ACTION: the data element is not on the Code Value Table (CVT) for the respective file; however, the rest of the transaction not in error was accepted. Correct and re-enter the portion of the transaction which was in error.

MESSAGE: INVALID - NOT A VALID DATE ERROR CODE: 403
USER ACTION: the date entered is invalid; however, the rest of the transaction not in error was accepted. The month is not in the range 01 to 12, the day is not in a range valid to its month, or the year is not numeric. Correct and re-enter this portion of the transaction.

MESSAGE: INVALID - ELEMENT EXCEEDS MAX ERROR CODE: 404
USER ACTION: the data element exceeds an established maximum value; however, the rest of the transaction not in error was accepted. Correct and re-enter this portion of the transaction. If this is a new maximum value, the program will have to be changed.

MESSAGE: INVALID- ELEMENT BELOW MIN ERROR CODE: 405
USER ACTION: the data element is below an established minimum value; however, the rest of the transaction not in error was accepted. Correct and re-enter the transaction. If this is a new minimum value, the program will have to be changed.

MESSAGE: INVALID - ELEMENT MISSING ERROR CODE: 406
USER ACTION: of two or more values that should be entered at once, the major field is missing even though the others may be present. The rest of the transaction not in error was accepted. Correct and re-enter the transaction.

MESSAGE: INVALID - VALUE UNACCEPTABLE ERROR CODE: 407
USER ACTION: the value entered was not acceptable according to current edit criteria; however, the rest of the transaction not in error has been accepted. Correct and re-enter this portion the transaction.

MESSAGE: INVALID - NOT ALPHABETIC ERROR CODE: 408
USER ACTION: the data element must be alphabetic; however, the rest of the transaction not in error was accepted. Correct and re-enter this portion of the transaction.

MESSAGE: INVALID - NOT ON PUB WATER TBL ERROR CODE: 409
USER ACTION: PWS-ID was not on the Public Water Table (PWT). Correct and re-enter this portion of the transaction.

MESSAGE: INVALID - ASSOC VALUE MISSING ERROR CODE: 410
USER ACTION: there is a field which has been entered which requires another field to be entered at the same time. The associated field is missing, however, the rest of the transaction not in error was accepted. Correct and re-enter this portion of the transaction.

VIII. Standard Error Messages for Processing Options

Any program which uses processing options records may produce any of the following messages:

A. Standard Error Messages & Remedial Actions for PROC Records

MESSAGE: ERROR - TWO PROC RECORDS SUPPLIED
REMEDIAL ACTION: return both records to data entry and re-enter the Processing Options record which is correct to rerun the job.

MESSAGE: ERROR - NO PROCESSING OPTION RECORDS WERE PROVIDED
REMEDIAL ACTION: obtain Processing Options from data entry and rerun job.

MESSAGE: ERROR - PROC TYPE NOT VALID IN OPTION RECORD
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - PROC RECORD CONTAINS AN INVALID DATE
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

B. Standard Error Messages & Remedial Actions for SORT Records

MESSAGE: ERROR - MAXIMUM SORT-KEY SIZE HAS BEEN EXCEEDED
REMEDIAL ACTION: return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - SORT SEQUENCE FIELD NOT NUMERIC
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new options to use to rerun job.

MESSAGE: ERROR - TWO SORT FIELDS HAVE THE SAME SEQUENCE NUM
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - SORT SEQUENCE NUMBER GREATER THAN MAXIMUM
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - SORT OPTION MNEMONIC-NAME IS INVALID
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - SORT MODE IS NOT ASCENDING OR DESCENDING
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - NONCONSECUTIVE SORT SEQUENCE VALUES
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

C. Standard Error Messages & Remedial Actions for SEL1 & SEL2 Records

MESSAGE: ERROR - INVALID CARD-ID IN SEL1 RECORD
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain new option to use to rerun job.

MESSAGE: ERROR - TWO SEL1 RECORDS HAVE THE SAME LOGIC ID
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain corrected option to use to rerun job.

MESSAGE: ERROR - MNEMONIC NAME IN SEL1 RECORD IS INVALID
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain corrected option to use to rerun job.

MESSAGE: ERROR - SEL1 VALUE TOO LONG FOR SPECIFIED MNEMONIC
REMEDIAL ACTION: check for keypunch error, if not return option to data entry. Obtain corrected option to use to rerun job.

MESSAGE: ERROR - NO SEL1 OPTION RECORD WAS PROVIDED
REMEDIAL ACTION: return all options to data entry. Obtain new options to use to rerun job.

MESSAGE: ERROR - LOGIC ID NOT 1 THRU 35 IN SEL1 RECORD
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain corrected option to use to rerun job.

MESSAGE: ERROR - SEL1 DATE-FIELD VALUE IS NOT A VALID DATE
REMEDIAL ACTION: check for valid six character date, if not, return option to data entry. Obtain corrected option to use to rerun job.

MESSAGE: ERROR - SEL1 CATALOGUE-NUMBER VALUE NOT NUMERIC
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Probable program error.

MESSAGE: ERROR - SEL2 OPERAND HAS NO MATCHING SEL1 RECORD
REMEDIAL ACTION: return all options to data entry. Obtain new options to use to rerun job.

MESSAGE: ERROR - NO SEL2 OPTION RECORD WAS PROVIDED
REMEDIAL ACTION: return all options to data entry. Obtain new options to use to rerun job.

MESSAGE: ERROR - MORE THAN 35 SEL2 RECORDS WERE PROVIDED
REMEDIAL ACTION: return all options to data entry. Obtain new options to use to rerun job.

MESSAGE: ERROR - SEL2 RECORD HAS INVALID RELATIONAL SYMBOL
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry. Obtain corrected option to use to rerun job.

IX. Subsystem Descriptions

A. Public Water System Inventory Subsystem (PWSI)

1. General Description

The Public Water System Inventory Subsystem (PWSI) is central to and a mandatory subsystem of the Model State Information System (MSIS). This subsystem maintains descriptive data about Public Water Systems (PWS's) on a Public Water File (PWF) which is also used by other subsystems. The principal function of the PWSI Subsystem is to create and maintain this file and to display its contents upon request.

The PWF is used in the following subsystems:

- Water Quality Compliance Subsystem (WAQC) uses the PWF to identify state defined regulation criteria for each specific PWS.

- Federal Reporting Subsystem (FEDR) uses the PWF to report on the individual PWS's which were modified in a specific reporting period.

- Sanitary Survey Subsystem (SRVY) uses the PWF to selectively weigh and list PWS's for survey purposes according to specific criteria.

In addition, some basic descriptive data is maintained in a direct access file, the Public Water Table (PWT), that is used as a verification aid by the subsystems: Enforcement Actions Subsystem, Variances and Exemptions Subsystem, and Operator and Mailing Subsystem.

2. How to Enter Data

The following instructions are in narrative form to be used as an educational tool for a user who is new to MSIS. A quick reference guide can be found in the Data Entry Instruction Manual for each of the input documents relative to this subsystem. They are arranged numerically by exhibit number.

EXHIBIT NO: PWSI.101
DESCRIPTION: This PROC option contains only the date which is to be printed on the reports created by program modules PWSI080 and PWSI130.

-Code the two-digit month under the "M", and two-digit day under the "D", and the last two digits of the year under the "Y".

EXHIBIT NO: PWSI.102
DESCRIPTION: This document is the original input form used to create the National Public Water System Inventory File. It is not used by NSIS other than as a reference to the file used at the time of conversion.

EXHIBIT NO: PWSI.103
DESCRIPTION: Of the two dates pictured, the first, columns 5 thru 10, is used only as a date that will appear on the report produced by PWSI090. The second is used as a comparison date; any history record previous to the date entered here will be purged.

-Both dates are in the same format; code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-Column 20 is used to determine whether or not the report of purged records is to be printed. The instructions are self-explanatory.

EXHIBIT NO: PWSI.105
DESCRIPTION: This is a RESTART option for the production of the turnaround document.

-The Restart Number is the page number you wish to begin re-printing the documents.

EXHIBIT NO: PWSI.106
DESCRIPTION: This PROC option contains a date which is to be printed on the report created by PWSI070.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The first Standard Error Processing Option is to determine whether or not a file of error records is to be created. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices.

-The second option is used to determine whether the entire transaction or only those fields which are in error should be printed on the error report. The instructions are self-explanatory.

-The Public History Report Option is used to determine whether the user would like to have only the new history file records printed, all the history file records printed, or none of the history file printed. Here too, the instructions are self-explanatory.

EXHIBIT NO: PWSI.107
DESCRIPTION: Refer to section III, User Defined Selection of Information, in this manual for complete instructions. This form is used with both PWSI020 and PWSI080 program modules.

EXHIBIT NO: PWSI.108
DESCRIPTION: Refer to section III, User Defined Selection of Information, in this manual for complete instructions. This form is used with both PWSI020 and PWSI080 program modules.

EXHIBIT NO: PWSI.111
DESCRIPTION: This PROC option is used with the PWSI010 Data Entry and Update Module. The date is used for the report heading as well as the last update date which is converted to Julian format and stored in the PWF record.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The first Standard Error Processing Option is to determine whether or not a file of error records is to be created. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices.

-The second option is used to determine whether the entire transaction should be printed on the error report or only those fields which are in error. The instructions are self-explanatory.

-The Report Options codes are either a "1", "2", or "3". The options for a new PWS Record Report can be any of these option codes; the user has the option not to produce a report. A report of Incomplete PWS Records must be produced and therefore allows the pre-printed report or the Comprehensive Report only. Similarly for Status Requests, the report must be produced one of the two ways. However, with Unsuccessful Update Records, the user has the option, again, of not producing the report.

-PROC options for module PWSI060 are generated from this PROC to precede the records created for the various Report Options herein. It is therefore necessary to carefully code this PROC to ensure that the intentions of the user will be met.

EXHIBIT NO: PWSI.112
DESCRIPTION: This PROC option is used with program module PWSI120, National Conversion. The date is used in the report header.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The State Postal Code is the two character U.S. Postal Service abbreviation of the state name that the user wishes to convert to MSIS format at the time of the run.

EXHIBIT NO: PWSI.113
DESCRIPTION: This PROC option is used with program module PWSI020, PWP Selection. The date is used in the report header.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-Of the four Report Options, at least one must be coded "Y" or the PROC will be rejected by the program. Any combination or all may be coded "Y" at one time. The instructions are self-explanatory.

EXHIBIT NO: PWSI.114

DESCRIPTION: This form is used for Status Requests and Deletion transactions entered into program module PWSI010, Data Entry and Update.

-The PWS-ID is the seven digit number of the PWS that the user wishes to have deleted or to have a Status Request made.

-The Card Code is coded as either a "98" for a Status Request, or a "99" for a Deletion.

3. Output Reports

Each report created by this subsystem is explained in detail, field by field, telling from where the data was obtained and how it was manipulated, if at all. They are arranged numerically by exhibit number.

PWS1030 1 OF 1
11/16/76

PRODUCE CONDENSED REPORT
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT PWSI.300

PWS1030 MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX CONDENSED REPORT
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ①
PAGE ZZZZ9

PWS-ID	REGION	DISTRICT	TYPE	MAILING NAME/ADDRESS	PLANT/OWNER ADDRESS	PLANT LOCATION	OWNER TYPE	POPULATION SERVED
XXXXXXX	XX	XX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXX XX XXXXX	CITY: XXXXXXXXXXXXXX COUNTY: XX	X	XXXXXXXXX
1	2	3	4	5	6	7	8	9	10

① TYPE OF PWF FILE BEING REPORTED

EXHIBIT NC: PWSI.300 PAGE 1 OF 2

PROGRAM NO: PWSI030

TITLE: Condensed Report

FIELD NO: 1
CATALOGUE NO: 145
DATA ELEMENT NAME: PWF-ID
DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 2
CATALOGUE NO: 200
DATA ELEMENT NAME: PWF-STATE-REGION
DESCRIPTION: A code identifying the administrative region of the state.

FIELD NO: 3
CATALOGUE NO: 201
DATA ELEMENT NAME: PWF-STATE-DISTRICT
DESCRIPTION: A code identifying an administrative district within a region.

FIELD NO: 4
CATALOGUE NO: 182
DATA ELEMENT NAME: PWF-PLANT-TYPE
DESCRIPTION: A flag indicating if this PWS is a community or non-community PWS.

FIELD NO: 5
CATALOGUE NO: 151
DATA ELEMENT NAME: PWF-MAILING-NAME
DESCRIPTION: The mailing name of the PWS.

FIELD NO: 5
CATALOGUE NO: 152
DATA ELEMENT NAME: PWF-MAILING-STREET
DESCRIPTION: First line of the mailing address of the PWS.

FIELD NO: 5
CATALOGUE NO: 153
DATA ELEMENT NAME: PWF-MAILING-CITY
DESCRIPTION: Second line of the mailing address of the PWS.

FIELD NO: 5
CATALOGUE NO: 154
DATA ELEMENT NAME: PWF-MAILING-STATE
DESCRIPTION: The two character U.S. Postal Service abbreviation of the mailing address of the PWS.

FIELD NO: 5
CATALOGUE NO: 155
DATA ELEMENT NAME: PWF-MAILING-ZIP-CODE
DESCRIPTION: The U.S. Postal Service Zip Code of the mailing address of the PWS.

PROGRAM NC: PWSI030

TITLE: Condensed Report

FIELD NO: 6 DATA ELEMENT NAME: PWF-PLANT-OWNER-NAME
CATALOGUE NO: 146 DESCRIPTION: The official name of the PWS.

FIELD NO: 6 DATA ELEMENT NAME: PWF-PLANT-STREET
CATALOGUE NO: 147 DESCRIPTION: The first line of the owner address of the PWS.

FIELD NO: 6 DATA ELEMENT NAME: PWF-PLANT-CITY
CATALOGUE NO: 148 DESCRIPTION: The second line of the owner address of the PWS.

FIELD NO: 6 DATA ELEMENT NAME: PWF-PLANT-STATE
CATALOGUE NO: 149 DESCRIPTION: The two character U.S. Postal Service abbreviation of the owner address of the PWS.

FIELD NO: 6 DATA ELEMENT NAME: PWF-PLANT-ZIP-CODE
CATALOGUE NO: 150 DESCRIPTION: The U.S. Postal Service Zip Code of the owner address.

FIELD NO: 7 DATA ELEMENT NAME: PWF-PLANT-COUNTY-CODE
CATALOGUE NO: 159 DESCRIPTION: The three digit county code as listed by STORET.

FIELD NO: 8 DATA ELEMENT NAME: PWF-PLANT-AREA-CITY-NAME
CATALOGUE NO: 158 DESCRIPTION: Name of the city which is serviced by the PWS.

FIELD NO: 9 DATA ELEMENT NAME: PWF-OWNER-TYPE
CATALOGUE NO: 237 DESCRIPTION: Code describing the type of a PWS owner.

FIELD NO: 10 DATA ELEMENT NAME: PWF-PLANT-POPULATION-SERVED
CATALOGUE NO: 183 DESCRIPTION: Total population obtaining water from the PWS.

PWS1050 1 OF 1
11/18/76

STATE DISCRETIONARY DATA REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT PWSI.301

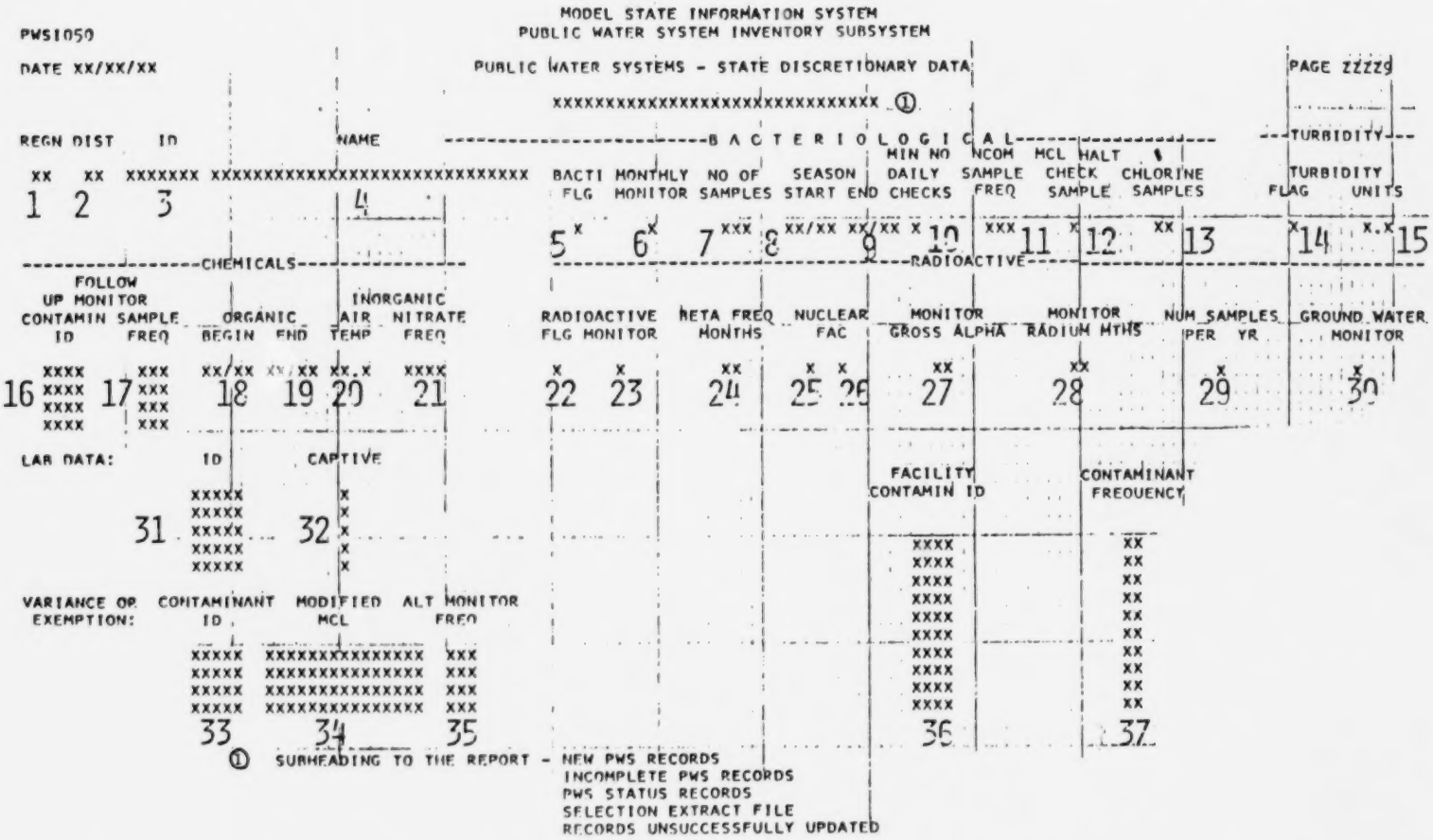


EXHIBIT NO: PWSI.301 PAGE 1 OF 5

PROGRAM NO: PWSI050

TITLE: State Discretionary Data

FIELD NO: 1
CATALOGUE NO: 200
DATA ELEMENT NAME: PWF-STATE-REGION
DESCRIPTION: A code identifying the administrative region of the state.

FIELD NO: 2
CATALOGUE NO: 201
DATA ELEMENT NAME: PWF-STATE-DISTRICT
DESCRIPTION: A code identifying an administrative district within a region.

FIELD NO: 3
CATALOGUE NO: 145
DATA ELEMENT NAME: PWF-ID
DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 4
CATALOGUE NO: 146
DATA ELEMENT NAME: PWF-PLANT-OWNER-NAME
DESCRIPTION: The official name of the PWS.

FIELD NO: 5
CATALOGUE NO: 202
DATA ELEMENT NAME: PWF-STATE-BACTERIOLOGICAL-FLG
DESCRIPTION: A flag indicating whether or not a PWS reports Bacteriological monitoring.

FIELD NO: 6
CATALOGUE NO: 203
DATA ELEMENT NAME: PWF-STATE-MONTHLY-MONITORING
DESCRIPTION: A flag indicating whether or not a PWS reports Bacteriological monitoring on a monthly basis.

FIELD NO: 7
CATALOGUE NO: 204
DATA ELEMENT NAME: PWF-STATE-NO-OF-SAMPLES
DESCRIPTION: The number of samples per quarter that a small community PWS may perform for bacteria in lieu of monthly monitoring.

PROGRAM NO: PWSI050

TITLE: State Discretionary Data

FIELD NO: 8
CATALOGUE NO: 205
DATA ELEMENT NAME: PWF-STATE-SEASON-BEGIN
DESCRIPTION: Beginning date for Bacteriological monitoring at a non-community PWS which is operating seasonally.

FIELD NO: 9
CATALOGUE NO: 206
DATA ELEMENT NAME: PWF-STATE-SEASON-END
DESCRIPTION: Ending date for Bacteriological monitoring at a non-community PWS which is operating seasonally.

FIELD NO: 10
CATALOGUE NO: 207
DATA ELEMENT NAME: PWF-STATE-MIN-NO-DAILY-CHECKS
DESCRIPTION: Minimum number of consecutive daily check samples required for Bacteriological Analysis.

FIELD NO: 11
CATALOGUE NO: 208
DATA ELEMENT NAME: PWF-STATE-NCOM-SAMPLE-FREQ
DESCRIPTION: Alternate sampling frequency in days for Bacteriological Analysis.

FIELD NO: 12
CATALOGUE NO: 209
DATA ELEMENT NAME: PWF-STATE-MCL-HALT-CHECK-SAMP
DESCRIPTION: Maximum contaminant level necessary to halt check sampling.

FIELD NO: 13
CATALOGUE NO: 210
DATA ELEMENT NAME: PWF-STATE-CHLORINE
DESCRIPTION: Percent of samples for Bacteriological Analysis that may be replaced by Chlorine Residual sampling.

FIELD NO: 14
CATALOGUE NO: 211
DATA ELEMENT NAME: PWF-STATE-TURBIDITY-FLAG
DESCRIPTION: A flag indicating whether or not a PWS reports Turbidity monitoring.

PROGRAM NO: PWSI050

TITLE: State Discretionary Data

FIELD NO: 15
CATALOGUE NO: 212
DATA ELEMENT NAME: PWF-STATE-TURBIDITY-UNITS
DESCRIPTION: The MCL set by the state for Turbidity monitoring.

FIELD NO: 16
CATALOGUE NO: 213
DATA ELEMENT NAME: PWF-STATE-CONTAMINANT-ID-CHEM
DESCRIPTION: Four digit contaminant code.

FIELD NO: 17
CATALOGUE NO: 214
DATA ELEMENT NAME: PWF-STATE-SAMPLING-FREQUENCY
DESCRIPTION: The number of days required between samplings.

FIELD NO: 18
CATALOGUE NO: 215
DATA ELEMENT NAME: PWF-STATE-ORGANIC-BEGIN-PERIOD
DESCRIPTION: The beginning date when sampling for organic chemicals is to be done.

FIELD NO: 19
CATALOGUE NO: 216
DATA ELEMENT NAME: PWF-STATE-ORGANIC-END-PERIOD
DESCRIPTION: The ending date when sampling for organic chemicals is to be done.

FIELD NO: 20
CATALOGUE NO: 217
DATA ELEMENT NAME: PWF-AIR-TEMPERATURE
DESCRIPTION: The air temperature used for determining compliance with the MCL for fluoride.

FIELD NO: 21
CATALOGUE NO: 218
DATA ELEMENT NAME: PWF-STATE-NITRATE-FREQUENCY
DESCRIPTION: Frequency in days for the monitoring of nitrate for a non-community PWS.

FIELD NO: 22
CATALOGUE NO: 219
DATA ELEMENT NAME: PWF-STATE-RADIOACTIVE-FLAG
DESCRIPTION: A flag indicating whether or not a PWS does Radiological monitoring.

PROGRAM NO: PWSI050

TITLE: State Discretionary Data

FIELD NO: 23 DATA ELEMENT NAME: PWF-STATE-RADIOACTIVE-MONITORING
CATALOGUE NO: 220 DESCRIPTION: A flag indicating whether or not an analysis is an MCL.

FIELD NO: 24 DATA ELEMENT NAME: PWF-STATE-BETA-FREQ-MONTHS
CATALOGUE NO: 221 DESCRIPTION: The number of months required between Gross Beta monitoring.

FIELD NO: 25 DATA ELEMENT NAME: PWF-STATE-NUCLEAR-FAC-TYPE1
CATALOGUE NO: 223 DESCRIPTION: The first of two possible nuclear facility types that may be involved with a PWS.

FIELD NO: 26 DATA ELEMENT NAME: PWF-STATE-NUCLEAR-FAC-TYPE2
CATALOGUE NO: 702 DESCRIPTION: The second of two possible nuclear facility types that may be involved with a PWS.

FIELD NO: 27 DATA ELEMENT NAME: PWF-STATE-MONITOR-GROSS-ALPHA
CATALOGUE NO: 226 DESCRIPTION: The number of months required between monitoring Gross Alpha.

FIELD NO: 28 DATA ELEMENT NAME: PWF-STATE-MONITOR-RADIUM-MTHS
CATALOGUE NO: 227 DESCRIPTION: The number of months required between monitoring Radium.

FIELD NO: 29 DATA ELEMENT NAME: PWF-STATE-NUM-SAMPLES-PER-YR
CATALOGUE NO: 228 DESCRIPTION: Number of samples per year for Radiological sampling.

FIELD NO: 30 DATA ELEMENT NAME: PWF-STATE-GROUND-WATER-MONITOR
CATALOGUE NO: 229 DESCRIPTION: A flag indicating whether or not a PWS reports ground water monitoring.

PROGRAM NO: PWSI050

TITLE: State Discretionary Data

FIELD NO: 31 DATA ELEMENT NAME: PWF-LAB-ID
CATALOGUE NO: 235 DESCRIPTION: A number identifying a certified laboratory.

FIELD NO: 32 DATA ELEMENT NAME: PWF-CAPTIVE-FLAG
CATALOGUE NO: 236 DESCRIPTION: A flag indicating whether or not the laboratory belongs to the PWS.

FIELD NO: 33 DATA ELEMENT NAME: PWF-VAEX-CONTAMINANT-ID
CATALOGUE NO: 238 DESCRIPTION: Four digit contaminant code for a variance or exemption.

FIELD NO: 34 DATA ELEMENT NAME: PWF-VAEX-MODIFIED-MCL
CATALOGUE NO: 239 DESCRIPTION: The MCL designated for the previous contaminant ID of a variance or exemption.

FIELD NO: 35 DATA ELEMENT NAME: PWF-VAEX-ALT-MONITOR-FREQ
CATALOGUE NO: 241 DESCRIPTION: Alternate monitoring frequency required for the previous contaminant ID.

FIELD NO: 36 DATA ELEMENT NAME: PWF-STATE-FAC-CONTAMINANT-ID
CATALOGUE NO: 224 DESCRIPTION: Four digit contaminant code for which analysis is done at the PWS.

FIELD NO: 37 DATA ELEMENT NAME: PWF-STATE-CONTAMINANT-FREQ
CATALOGUE NO: 225 DESCRIPTION: The frequency in days between sampling for the previous contaminant ID.

PWSI040 PAGE 1 OF 1

PRODUCTION DATA REPORT MODULE 11/18/76

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT PWSI.302

PWSI040

MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX

PRODUCTION AND CAPACITY DATA

PAGE ZZZZ9

PWS-ID	REG/ DIST	TYPE	UNITS	PWS NAME	POPULATION SERVED	SERVICES NUMBER	METERS NUMBER	AVERAGE PRODUCT	DESIGN CAPACITY	EMERGENCY POWER	STORAGE CAPACITY	MAXIMUM PRODUCTION
XXXXXXX	XX/XX	X	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXX	XXXXXXX	XXXXXXX	XXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
XXXXXXX	XX/XX	X	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXX	XXXXXXX	XXXXXXX	XXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
XXXXXXX	XX/XX	X	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXX	XXXXXXX	XXXXXXX	XXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
1	2 3	4	5	6	7	8	9	10	11	12	13	14

EXHIBIT NO: PWSI.302 PAGE 1 OF 2

PROGRAM NO: PWSI040

TITLE: Production and Capacity Data

FIELD NO: 1
CATALOGUE NO: 145
DATA ELEMENT NAME: PWF-ID
DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 2
CATALOGUE NO: 200
DATA ELEMENT NAME: PWF-STATE-REGION
DESCRIPTION: A code identifying the administrative region of the state.

FIELD NO: 3
CATALOGUE NO: 201
DATA ELEMENT NAME: PWF-STATE-DISTRICT
DESCRIPTION: A code identifying an administrative district within a region.

FIELD NO: 4
CATALOGUE NO: 182
DATA ELEMENT NAME: PWF-PLANT-TYPE
DESCRIPTION: A flag indicating whether this PWS is a community or non-community PWS.

FIELD NO: 5
CATALOGUE NO: 232
DATA ELEMENT NAME: PWF-STATE-ENGLISH-METRIC-SYSTM
DESCRIPTION: A flag to tell whether English or Metric System is being used in reporting.

FIELD NO: 6
CATALOGUE NO: 146
DATA ELEMENT NAME: PWF-PLANT-OWNER-NAME
DESCRIPTION: The official name of a PWS.

FIELD NO: 7
CATALOGUE NO: 183
DATA ELEMENT NAME: PWF-PLANT-POPULATION-SERVED
DESCRIPTION: Total population obtaining water from this PWS.

FIELD NO: 8
CATALOGUE NO: 184
DATA ELEMENT NAME: PWF-PLANT-SERVICES-NUMBER
DESCRIPTION: The number of service connections, not counting consecutive water systems, which use water from this PWS.

PROGRAM NO: PWSI040

TITLE: Production and Capacity Data

FIELD NO: 9
CATALOGUE NO: 185
DATA ELEMENT NAME: PWF-PLANT-METERS-NUMBER
DESCRIPTION: The number of service connections with water meters.

FIELD NO: 10
CATALOGUE NO: 186
DATA ELEMENT NAME: PWF-PLANT-AVERAGE-PRODUCTION
DESCRIPTION: Average annual production in gallons per day in the most recent year.

FIELD NO: 11
CATALOGUE NO: 187
DATA ELEMENT NAME: PWF-PLANT-DESIGN-CAPACITY
DESCRIPTION: Approved design capacity in gallons or liters per day of treatment plant.

FIELD NO: 12
CATALOGUE NO: 188
DATA ELEMENT NAME: PWF-PLANT-EMERGENCY-POWER
DESCRIPTION: The amount of water in gallons or liters per day that can be produced with power generation equipment of the PWS.

FIELD NO: 13
CATALOGUE NO: 189
DATA ELEMENT NAME: PWF-PLANT-STORAGE-CAPACITY
DESCRIPTION: The storage capacity in gallons or liters that is ready for the distribution system.

FIELD NO: 14
CATALOGUE NO: 190
DATA ELEMENT NAME: PWF-PLANT-MAX-PRODUCTION
DESCRIPTION: Maximum daily production in gallons or liters per day.

PWS1060 1 OF 1

PRODUCE COMPREHENSIVE REPORT

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT PWSI.303

PWS1060 MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX COMPREHENSIVE REPORT PAGE ZZZZ9

1 PWS-ID: XXXXXXX NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 2 PHONE: (XXX) XXX-XXXX 4 INDIAN RESERVATION CODE: XXX 7

PLANT ADDRESS: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX PLANT AREA LOCATION: COMPLIANCE CYCLE: XX

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX CITY: XXXXXXXXXXXXXXX POSTAL CODE: XX

MAILING NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 3 COUNTY: XXX 5 PLANT TYPE: X OWNER TYPE: X 9

MAILING ADDRESS: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX REGION: XX 6 DISTRICT: XX 8 PLANT BEGIN DATE: XX/XX 10

11 PLANT SERVICE AREA: RESIDENTIAL: X COMPANY TOWN: X RECREATION: X MOBILE HOMES: X INSTITUTION: X SCHOOL: X OTHER AREA: X

MOTEL: X RESTAURANT: X SERV STATION: X CAMPGROUND: X PICNIC AREA: X LODGE: X

MARINA: X SKI RESORT: X BATHING: X VISITOR CENTER: X HWY REST AREA: X AIRPORT: X

12 POPULATION SERVED: XXXXXXXXX NUMBER OF SERVICES: XXXXXXX NUMBER OF METERS: XXXXXXX CONSECUTIVE INDICATOR: X

DESIGN CAPACITY: XXXXXXXXXX EMERGENCY POWER: XXXXXXXXXX STORAGE CAPACITY: XXXXXXXXXX NUMBER OF CONSECUTIVE PWS: XXXXXXX

INTERSTATE CARRIER: X AVERAGE PRODUCTION: XXXXXXXXXX LAST SURVEY DATE: XX/XX/XX MAXIMUM PRODUCTION: XXXXXXXXX

DEACTIVATION REASON: X DEACTIVATION DATE: XX/XX/XX MANUAL FILE: XXXXXXXXXXX LAST UPDATE DATE: XX/XX/XX

REGULATE BY: X ACTIVITY CODE: X

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13 STATE DISCRETIONARY DATA:

BACTERIOLOGICAL FLG: X MINIMUM NUMBER DAILY CHECKS: X NON-COMMUNITY SAMPLING FREQ: XXX

MONTHLY MONITORING: X SAMPLES PER QUARTER: XXX MCL HALT CHECK SAMPLE: X SEASON

CHLORINE: XX TURBIDITY FLAG: X TURBIDITY UNITS: X.X START: XX/XX END: XX/XX

FOLLOW UP: 14 CONTAMINANT ID: XXXX XXXX XXXX XXXX

SAMPLING FREQ: XXX XXX XXX XXX

15 ORGANIC CHEMICALS: ORGANIC INORGANIC CHEMICALS: 16

BEGIN PERIOD: XX/XX END PERIOD: XX/XX AIR TEMPERATURE: XX.X NITRATE FREQUENCY: XXXX

RADIOACTIVE: FLAG: X MONITORING: X BETA FREQUENCY MONTHS: XX MONITOR GROSS ALPHA: XX MONITOR RADIUM MONTHS: XX

17 GROUND WATER MONITOR: X NO SAMPLES PER YEAR: X NUCLEAR FACILITY: X NUCLEAR FACILITY TYPES: X X

FACILITY CONTAMINANT ID: XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX

18 OPERATING REPORT: SAMPLING FREQUENCY: XX XX XX XX XX XX XX XX XX XX

REPORT REQUIRED: X LAST REPORT DATE: XX/XX GENERIC METRIC SYSTEM: X

STATE RESERVED: 19

LAB DATA:

20 LAB ID: XXXXX XXXXX XXXXX XXXXX XXXXX

CAPTIVE FLG: X X X X X

PLANT SOURCES NUMBER: XX

SOURCE INFORMATION: 22

VARIANCE OR EXEMPTION:

21 CONTAMINANT ID: XXXX XXXX XXXX XXXX

MODIFIED MCL: XXXXXXXXXX XXXXXXXXX XXXXXXXXXX XXXXXXXXXX

ALT MONITOR FREQ: XXX XXX XXX XXX

SOURCE NAME	SOURCE CODE	NUMBER OF WELLS	AVAILABILITY	BASIN NUMBER	LATITUDE	LONGITUDE	SELLER ID	TREATMENTS A E T H	P R L M	C O E R	S E A C	F I D G	C O L I	S T P R	T A F T	I R S N	A M U O	F O S I	D U H E	O S S R
XXXXXXXXXXXXXXX	X	XX	X	XXXX	XXX.XX.XX	XXX.XX.XX	XXXXXX	X	X	X	X	X	X	X	X	X	X	X	X	X
XXXXXXXXXXXXXXX	X	XX	X	XXXX	XXX.XX.XX	XXX.XX.XX	XXXXXX	X	X	X	X	X	X	X	X	X	X	X	X	X
XXXXXXXXXXXXXXX	X	XX	X	XXXX	XXX.XX.XX	XXX.XX.XX	XXXXXX	X	X	X	X	X	X	X	X	X	X	X	X	X
23	24	25	26	27	28	29	30	31												

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 1 DATA ELEMENT NAME: PWF-ID
CATALOGUE NO: 145 DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 2 DATA ELEMENT NAME: PWF-PLANT-OWNER-NAME
CATALOGUE NO: 146 DESCRIPTION: The name of the owner or the official plant name of a Public Water System (PWS).

FIELD NO: 2 DATA ELEMENT NAME: PWF-PLANT-STREET
CATALOGUE NO: 147 DESCRIPTION: The owner or plant street address.

FIELD NO: 2 DATA ELEMENT NAME: PWF-PLANT-CITY
CATALOGUE NO: 148 DESCRIPTION: The owner or plant city name.

FIELD NO: 2 DATA ELEMENT NAME: PWF-PLANT-STATE
CATALOGUE NO: 149 DESCRIPTION: The two character U.S. Postal Service abbreviation of the owner or plant state name.

FIELD NO: 2 DATA ELEMENT NAME: PWF-PLANT-ZIP-CODE
CATALOGUE NO: 150 DESCRIPTION: The U.S. Postal Service Zip Code of the owner or plant address.

FIELD NO: 3 DATA ELEMENT NAME: PWF-MAILING-NAME
CATALOGUE NO: 151 DESCRIPTION: The mailing name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: PWF-MAILING-STREET
CATALOGUE NO: 152 DESCRIPTION: The street name and number of the mailing address of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: PWF-MAILING-CITY
CATALOGUE NO: 153 DESCRIPTION: The city name of the PWS mailing address.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 3 DATA ELEMENT NAME: PWF-MAILING-STATE
CATALOGUE NO: 154 DESCRIPTION: The two character U.S. Postal Service abbreviation of the mailing address state.

FIELD NO: 3 DATA ELEMENT NAME: PWF-MAILING-ZIP-CODE
CATALOGUE NO: 155 DESCRIPTION: The U.S. Postal Service Zip Code of the mailing address.

FIELD NO: 4 DATA ELEMENT NAME: PWF-MAILING-AREA-CODE
CATALOGUE NO: 156 DESCRIPTION: The area code of the telephone number to be used when communications are necessitated with the PWS.

FIELD NO: 4 DATA ELEMENT NAME: PWF-MAILING-PHONE-NUMBER
CATALOGUE NO: 157 DESCRIPTION: The telephone number to be used when communications are necessitated with the PWS.

FIELD NO: 5 DATA ELEMENT NAME: PWF-PLANT-AREA-CITY-NAME
CATALOGUE NO: 158 DESCRIPTION: The name of the city or community serviced by the PWS.

FIELD NO: 5 DATA ELEMENT NAME: PWF-PLANT-AREA-COUNTY-CODE
CATALOGUE NO: 159 DESCRIPTION: The three digit county code as listed by STORET.

FIELD NO: 6 DATA ELEMENT NAME: PWF-STATE-REGION
CATALOGUE NO: 200 DESCRIPTION: A code identifying the administrative region of the state responsible for monitoring the PWS.

FIELD NO: 7 DATA ELEMENT NAME: PWF-PLANT-INDIAN-RESERVATION
CATALOGUE NO: 160 DESCRIPTION: Code identifying the Indian Reservation which is being serviced by the PWS; Standard Code Book of the Indian Health Service.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 7 DATA ELEMENT NAME: PWF-PLANT-COMPLIANCE-CYCLE
CATALOGUE NO: 193 DESCRIPTION: The day of the month on which the compliance cycle begins.

FIELD NO: 7 DATA ELEMENT NAME: PWF-STATE-POSTAL-CODE
CATALOGUE NO: 198 DESCRIPTION: A two character code assigned to the state responsible for the PWS's surveillance.

FIELD NO: 7 DATA ELEMENT NAME: PWF-PLANT-TYPE
CATALOGUE NO: 182 DESCRIPTION: A flag indicating whether the PWS is classified as community or non-community.

FIELD NO: 8 DATA ELEMENT NAME: PWF-STATE-DISTRICT
CATALOGUE NO: 201 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 9 DATA ELEMENT NAME: PWF-OWNER-TYPE
CATALOGUE NO: 237 DESCRIPTION: A code identifying the type of ownership pertaining to the PWS.

FIELD NO: 10 DATA ELEMENT NAME: PWF-PLANT-BEGIN-DATE
CATALOGUE NO: 191 DESCRIPTION: The month and year that the PWS began operation.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-RESIDENTIAL
CATALOGUE NO: 161 DESCRIPTION: A flag to tell whether or not the PWS serves a residential area.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-COMPANY-TOWN
CATALOGUE NO: 162 DESCRIPTION: A flag to tell whether or not the PWS serves a company or town.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-RECREATION
CATALOGUE NO: 163 DESCRIPTION: A flag to tell whether or not the PWS serves a recreation area.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-MOBILE-HOMES
CATALOGUE NO: 164 DESCRIPTION: A flag to tell whether or not the PWS serves a mobile home park.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-INSTITUTION
CATALOGUE NO: 165 DESCRIPTION: A flag to tell whether or not the PWS serves a state institution (training center, prison, etc.)

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-SCHOOL
CATALOGUE NO: 166 DESCRIPTION: A flag to tell whether or not the PWS serves a school.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-MOTEL
CATALOGUE NO: 167 DESCRIPTION: A flag to tell whether or not the PWS serves a motel.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-RESTAURANT
CATALOGUE NO: 168 DESCRIPTION: A flag to tell whether or not the PWS serves a restaurant.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-SERVICE-STATION
CATALOGUE NO: 169 DESCRIPTION: A flag to tell whether or not the PWS serves a service station.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-CAMPGROUND
CATALOGUE NO: 170 DESCRIPTION: A flag to tell whether or nct a PWS serves a campground area.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-PICNIC-AREA
CATALOGUE NO: 171 DESCRIPTION: A flag to tell whether or not a PWS serves a picnic area.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-LODGE
CATALOGUE NO: 172 DESCRIPTION: A flag to tell whether or not the PWS serves a lodge.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-MARINA
CATALOGUE NO: 173 DESCRIPTION: A flag to tell whether or not the PWS serves a marina.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-SKI-RESORT
CATALOGUE NO: 174 DESCRIPTION: A flag to tell whether or not the PWS serves a ski resort.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-BATHING
CATALOGUE NO: 175 DESCRIPTION: A flag to tell whether or not a PWS serves a swimming pool or beach area.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-VISITOR-CENTER
CATALOGUE NO: 176 DESCRIPTION: A flag to tell whether or not the PWS serves a visitor center area.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-HWY-REST-AREA
CATALOGUE NO: 177 DESCRIPTION: A flag to tell whether or not a PWS serves a highway rest area.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-AIRPORT
CATALOGUE NO: 178 DESCRIPTION: A flag to tell whether or not a PWS serves an airport.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-OTHER-AREA
CATALOGUE NO: 179 DESCRIPTION: A flag to tell whether or not a PWS serves an area other than those previously mentioned.

FIELD NO: 12 DATA ELEMENT NAME: PWP-PLANT-POPULATION-SERVE
CATALOGUE NO: 183 DESCRIPTION: Total population obtaining water from this PWS.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-SERVICES-NUMBER
CATALOGUE NO: 184 DESCRIPTION: The number of service connections, not counting consecutive water systems, which use water from the PWS.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-METERS-NUMBER
CATALOGUE NO: 185 DESCRIPTION: The number of service connections with meters.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-CONSEC-INDICATOR
CATALOGUE NO: 701 DESCRIPTION: A flag indicating whether or not the PWS is a consecutive water system, and if so, whether the PWS is required to monitor its water.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-CONSECUTIVE-NUM-PWS
CATALOGUE NO: 180 DESCRIPTION: The number of consecutive water systems purchasing water from this PWS.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-DESIGN-CAPACITY
CATALOGUE NO: 187 DESCRIPTION: Approved design capacity in gallons per day of the treatment plant.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-EMERGENCY-POWER
CATALOGUE NO: 188 DESCRIPTION: The amount of water in gallons per day that can be produced with power generation equipment of the PWS.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-STORAGE-CAPACITY
CATALOGUE NO: 189 DESCRIPTION: The storage capacity in gallons that is ready for distribution.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-MAX-PRODUCTION
CATALOGUE NO: 190 DESCRIPTION: The maximum daily production capacity of the PWS in gallons per day.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-INTERSTATE-CARRIER
CATALOGUE NO: 181 DESCRIPTION: A flag indicating whether or not a PWS supplies water to an interstate carrier.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-AVERAGE-PRODUCTION
CATALOGUE NO: 186 DESCRIPTION: Average annual production in gallons per day in the most recent year.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-LAST-SURVEY-DATE
CATALOGUE NO: 192 DESCRIPTION: The date on which the last Sanitary Survey was performed at a PWS plant converted from Julian format.

FIELD NO: 12 DATA ELEMENT NAME: PWF-LAST-UPDATE-DATE
CATALOGUE NO: 234 DESCRIPTION: The date on which the last update was made, converted from Julian format.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-DEACTIVATION-REASON
CATALOGUE NO: 196 DESCRIPTION: A code identifying the reason for deactivation of the PWS.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-DEACTIVATION-DATE
CATALOGUE NO: 195 DESCRIPTION: The date on which the PWS became inactive, converted from Julian format.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-MANUAL-FILE
CATALOGUE NO: 197 DESCRIPTION: A reference to manual files for record keeping.

FIELD NO: 12 DATA ELEMENT NAME: PWF-STATE-REGULATE-BY
CATALOGUE NO: 199 DESCRIPTION: A code identifying the type of regulations that apply to the PWS (federal, state, both, none)

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-ACTIVITY
CATALOGUE NO: 194 DESCRIPTION: A flag indicating whether or not the PWS plant is active.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 13 DATA ELEMENT NAME: PWF-STATE-BACTERIOLOGICAL-FLG
CATALOGUE NO: 202 DESCRIPTION: A flag identifying whether sample input data will be reported on a list or summary input form.

FIELD NO: 13 DATA ELEMENT NAME: PWF-STATE-MIN-NO-DAILY-CHECKS
CATALOGUE NO: 207 DESCRIPTION: The number of check samples that must be taken per day if the State requires more than one be taken per day.

FIELD NO: 13 DATA ELEMENT NAME: PWF-STATE-NCOM-SAMPLE-FREQ
CATALOGUE NO: 208 DESCRIPTION: The alternate sampling frequency for a non-community PWS in lieu of the default value specified in the regulations.

FIELD NO: 13 DATA ELEMENT NAME: PWF-STATE-MONTHLY-MONITORING
CATALOGUE NO: 203 DESCRIPTION: A flag telling whether or not the PWS must determine compliance for Bacteriological contamination on a monthly basis if less than 4 samples per month are required.

FIELD NO: 13 DATA ELEMENT NAME: PWF-STATE-NO-OF-SAMPLES
CATALOGUE NO: 204 DESCRIPTION: Minimum number of samples a small community water supply must take per quarter in lieu of monthly monitoring, or a non-community water supply must take within a specified time period in lieu of default in the RGF.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 13 DATA ELEMENT NAME: PWF-STATE-MCL-HALT-CHECK-SAMP
CATALOGUE NO: 209 DESCRIPTION: Minimum number of consecutive days worth of negative check samples required to halt Bacteriological Check sampling for a PWS.

FIELD NO: 13 DATA ELEMENT NAME: PWF-STATE-SEASON-BEGIN
CATALOGUE NO: 205 DESCRIPTION: The month and day that a non-community PWS begins operations seasonally.

FIELD NO: 13 DATA ELEMENT NAME: PWF-STATE-SEASON-END
CATALOGUE NO: 206 DESCRIPTION: The month and day that a non-community PWS ends operations seasonally.

FIELD NO: 13 DATA ELEMENT NAME: PWF-STATE-CHLORINE
CATALOGUE NO: 210 DESCRIPTION: The percent of samples for Bacteriological Analysis that may be substituted by Chlorine Residual Sampling and Analysis.

FIELD NO: 13 DATA ELEMENT NAME: PWF-STATE-TURBIDITY-FLAG
CATALOGUE NO: 211 DESCRIPTION: A flag which will indicate whether sample input data will be reported on a list or summary input form.

FIELD NO: 13 DATA ELEMENT NAME: PWF-STATE-TURBIDITY-UNITS
CATALOGUE NO: 212 DESCRIPTION: The number of Turbidity Units allowed as an MCL for the monthly average to Turbidity Samples for a PWS.

FIELD NO: 14 DATA ELEMENT NAME: PWF-STATE-CONTAMINANT-ID-CHEM
CATALOGUE NO: 213 DESCRIPTION: The Contaminant ID of a Chemical Contaminant requiring followup monitoring.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 14 DATA ELEMENT NAME: PWF-STATE-SAMPLING-FREQUENCY
CATALOGUE NO: 214 DESCRIPTION: The sampling frequency applying to follow up monitoring of the associated contaminant.

FIELD NO: 15 DATA ELEMENT NAME: PWF-STATE-ORGANIC-BEGIN-PERIOD
CATALCGUE NO: 215 DESCRIPTION: The beginning date, month and day, of a seasonal period for which monitoring for Organic Chemicals is to be performed for a PWS.

FIELD NO: 15 DATA ELEMENT NAME: PWF-STATE-ORGANIC-END-PERIOD
CATALOGUE NO: 216 DESCRIPTION: The ending date, month and day, of a seasonal period for which monitoring for Organic Chemicals is to be performed for a PWS.

FIELD NO: 16 DATA ELEMENT NAME: PWF-STATE-AIR-TEMPERATURE
CATALOGUE NO: 217 DESCRIPTION: The annual average daily maximum air temperature of the PWS.

FIELD NO: 16 DATA ELEMENT NAME: PWF-STATE-NITRATE-FREQUENCY
CATALOGUE NO: 218 DESCRIPTION: The monitoring frequency for nitrate to be used by a non-community PWS after completion of initial analyses.

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-RADIOACTIVE-FLAG
CATALOGUE NO: 219 DESCRIPTION: A flag indicating whether the PWS is to be monitored continuously for Radioactive Contaminants and under which conditions.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-RADIOACTIVE-MONITOR
CATALOGUE NO: 220 DESCRIPTION: A flag indicating whether or not the instrument detection limit for Beta Emitters is to be used in determining compliance when a value lower than the detection limit is entered and how the PWS is reporting sample analysis results.

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-BETA-FREQ-MONTHS
CATALOGUE NO: 221 DESCRIPTION: The minimum frequency required for monitoring man-made Radionuclides for this PWS after initial analysis.

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-MONITOR-GROSS-ALPHA
CATALOGUE NO: 226 DESCRIPTION: The monitoring frequency in months to be used for monitoring Gross Alpha Particle activity for a PWS.

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-MONITOR-RADIUM-MNTHS
CATALOGUE NO: 227 DESCRIPTION: The monitoring frequency in months to be used for monitoring Radium Particle activity for a PWS.

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-GROUND-WATER-MONITOR
CATALOGUE NO: 229 DESCRIPTION: A flag to indicate whether the PWS is to monitor Organic Contaminants, Gross Beta, or both, if it is supplied by ground water sources only.

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-NUM-SAMPLES-PER-YEAR
CATALOGUE NO: 228 DESCRIPTION: The number of samples to be taken per year for Gross Alpha and Radium Analyses when the average annual concentration is less than half the MCL.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-NUCLEAR-FACILITY
CATALOGUE NO: 222 DESCRIPTION: A flag indicating whether the PWS is contaminated by effluents from a Nuclear facility.

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-NUCLEAR-FAC-TYPE1
CATALOGUE NO: 223 DESCRIPTION: A code identifying the type of Nuclear facility whose Radioactive Effluents are contaminating a PWS.

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-NUCLEAR-FAC-TYPE2
CATALOGUE NO: 702 DESCRIPTION: A code identifying the type of Nuclear facility whose Radioactive Effluents are contaminating a PWS in addition to the first type.

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-FAC-CONTAMINANT-ID
CATALOGUE NO: 224 DESCRIPTION: A four character code representing the contaminant name of a Beta Emitter to be monitored by the PWS.

FIELD NO: 17 DATA ELEMENT NAME: PWF-STATE-CONTAMINANT-FREQ
CATALOGUE NO: 225 DESCRIPTION: The monitoring frequency in months to be used when monitoring a Beta Emitter for a PWS.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 18 DATA ELEMENT NAME: PWF-STATE-REPORT-REQUIRED
CATALOGUE NO: 230 DESCRIPTION: A flag indicating whether or not a PWS must submit a monthly operations report.

FIELD NO: 18 DATA ELEMENT NAME: PWF-STATE-LAST-REPORT-DATE
CATALOGUE NO: 231 DESCRIPTION: The month and year on which the last monthly operations report was submitted.

FIELD NO: 18 DATA ELEMENT NAME: PWF-STATE-ENGLISH-METRIC-SYSTM
CATALOGUE NO: 232 DESCRIPTION: A flag indicating whether the English (gallons/fahrenheit) or Metric (liters/celcius) system of measurement is used by the PWS.

FIELD NO: 20 DATA ELEMENT NAME: PWF-LAB-ID
CATALOGUE NO: 235 DESCRIPTION: A five digit code identifying the laboratory performing a major percentage of analyses for the PWS.

FIELD NO: 20 DATA ELEMENT NAME: PWF-LAB-CAPTIVE-FLAG
CATALOGUE NO: 236 DESCRIPTION: Flag indicating whether or not the laboratory belongs to the PWS.

FIELD NO: 21 DATA ELEMENT NAME: PWF-VAEX-CONTAMINANT-ID
CATALOGUE NO: 238 DESCRIPTION: A four digit code identifying the contaminant for which a variance or exemption was granted.

FIELD NO: 21 DATA ELEMENT NAME: PWF-VAEX-MODIFIED-MCL
CATALOGUE NO: 239 DESCRIPTION: The MCL relative to the contaminant for which a variance or exemption has been granted.

FIELD NO: 21 DATA ELEMENT NAME: PWF-VAEX-MODIFIED-MCL-DEC
CATALOGUE NO: 240 DESCRIPTION: The number of decimal positions that should appear in the modified MCL.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 21 DATA ELEMENT NAME: PWF-VAEX-ALT-MONITOR-FREQ
CATALOGUE NO: 241 DESCRIPTION: The alternate monitoring frequency to be used for a contaminant relative to the granting of a variance or exemption.

FIELD NO: 22 DATA ELEMENT NAME: PWF-PLANT-SOURCES-NUMBER
CATALOGUE NO: 242 DESCRIPTION: The number of water sources used by a PWS.

FIELD NO: 23 DATA ELEMENT NAME: PWF-PLANT-SOURCE-NAME
CATALOGUE NO: 243 DESCRIPTION: The name of a water source used by the PWS.

FIELD NO: 24 DATA ELEMENT NAME: PWF-PLANT-SOURCE-CODE
CATALOGUE NO: 244 DESCRIPTION: A code identifying the type of water source (surface, ground, purchased)

FIELD NO: 25 DATA ELEMENT NAME: PWF-PLANT-NUMBER-OF-WELLS
CATALOGUE NO: 245 DESCRIPTION: The number of wells within a given ground water source.

FIELD NO: 26 DATA ELEMENT NAME: PWF-PLANT-AVAILABILITY
CATALOGUE NO: 246 DESCRIPTION: A code to identify the availability of a water source.

FIELD NO: 27 DATA ELEMENT NAME: PWF-PLANT-BASIN-NUMBER
CATALOGUE NO: 247 DESCRIPTION: A code identifying the river or lake from which a surface water source is obtained by a PWS, as defined by STORET.

FIELD NO: 28 DATA ELEMENT NAME: PWF-PLANT-LATITUDE
CATALOGUE NO: 248 DESCRIPTION: The latitude of the water source in degrees, minutes and seconds.

FIELD NO: 29 DATA ELEMENT NAME: PWF-PLANT-LONGITUDE
CATALOGUE NO: 249 DESCRIPTION: The longitude of the water source in degrees, minutes and seconds.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 30 DATA ELEMENT NAME: PWF-PLANT-SELLER-ID
CATALOGUE NO: 250 DESCRIPTION: The PWS-ID of the PWS selling water to this PWS.

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-AERATION
CATALOGUE NO: 251 DESCRIPTION: A flag indicating whether or not the source has a given Aeration Technique applied to it.

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-PRECHLORINATION
CATALOGUE NO: 252 DESCRIPTION: A flag indicating whether or not the source has a given Prechlorination Technique applied to it.

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-COAGULATION
CATALOGUE NO: 253 DESCRIPTION: A flag indicating whether or not the source has a given Coagulation Technique applied to it.

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-SEDIMENTATION
CATALOGUE NO: 254 DESCRIPTION: A flag indicating whether or not the source has a given Sedimentation Technique applied to it.

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-FILTRATION
CATALOGUE NO: 255 DESCRIPTION: A flag indicating whether or not the source has a given Filtration Technique applied to it.

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-CORROSION-CONTROL
CATALOGUE NO: 256 DESCRIPTION: A flag indicating whether or not the source has a given Corrosion Control Technique applied to it.

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-SOFTENING
CATALOGUE NO: 257 DESCRIPTION: A flag indicating whether or not the source has a given Softening Technique applied to it.

PROGRAM NO: PWSI060

TITLE: Comprehensive Report

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-TASTE-ODOR
CATALOGUE NO: 258 DESCRIPTION: A flag indicating whether or not the source has a given Taste and Odor Removing Technique applied to it.

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-IRON-REMOVAL
CATALOGUE NO: 259 DESCRIPTION: A flag indicating whether or not the source has a given iron removal technique applied to it.

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-AMMONIATION
CATALOGUE NO: 260 DESCRIPTION: A flag indicating whether or not the source has a given ammoniation technique applied to it.

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-FLUORIDE-ADJUSTMENT
CATALOGUE NO: 261 DESCRIPTION: A flag indicating whether or not the source has a given Fluoride Adjustment Technique applied to it.

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-DISINFECTION
CATALOGUE NO: 262 DESCRIPTION: A flag indicating whether or not the source has a given Disinfection Technique applied to it.

FIELD NO: 31 DATA ELEMENT NAME: PWF-PLANT-OTHER-TREATMENT
CATALOGUE NO: 263 DESCRIPTION: A flag indicating whether or not the source has treatments other than those listed above applied to it.

PWSI120 1 OF 1
11/16/76

CONVERT NATIONAL INVENTORY MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT PWSI.305

MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

PWSI120
DATE XX/XX/XX

NATIONAL PUBLIC WATER FILE
CONVERTED DATA REPORT

PAGE ZZZZ9

1 2 3 6 7

PWS PLANT ID: XXXXXXX NATIONAL KEY: XXXXXXXXXXXXX PHONE: XXXXX XXXXXXXX ------PLANT------
NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX OWNER TYPE: X
LOCATION: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XX XXXXX

5

COUNTY CODE : XXX
POPULATION SERVED: XXXXXXXXX
NUMBER SERVICES : XXXXXXX
NUMBER METERS : XXXXXXX
BEGIN DATE : XX/XX

----PLANT----
DESIGN CAPACITY : XXXXXXXXXX
EMERGENCY POWER : XXXXXXXXXX
STORAGE CAPACITY: XXXXXXXXXX
AVERAGE CAPACITY: XXXXXXXXXX
MAX. PRODUCTION : XXXXXXXXXX

4

SERVICE AREA CHARACTERISTICS
SCHOOL : X COMMUNITY: X COMPANY TOWN: X RECREATION : X MOBILE HOME PARK: X INSTITUTION : X
LODGE : X HOTEL : X RESTAURANT : X SERVICE STATION: X CAMPGROUND : X PICNIC AREA : X
OTHER : X MARINA : X SKI RESORT : X BATHING : X VISITOR CENTER : X HIGHWAY REST AREA: X

9 10 11 12 13

LAST UPDATE DATE: XX/XX/XX

8

PWS PLANT: SOURCE NAME | LATITUDE | LONGITUDE | SOURCE CODE

1 XXXXXXXXXXXXXXX XXXXXXX XXXXXXX X

14 15 16 17

SOURCES

TREATMENTS	1	2	3	4	5	6	7	8	9	10	11	12
AERATION	X	X	X	X	X	X	X	X	X	X	X	X
PRECHLORINATION	X	X	X	X	X	X	X	X	X	X	X	X
COAGULATION	X	X	X	X	X	X	X	X	X	X	X	X
SEDIMENTATION	X	X	X	X	X	X	X	X	X	X	X	X
FILTRATION	X	X	X	X	X	X	X	X	X	X	X	X
CORROSION CNTRL	X	X	X	X	X	X	X	X	X	X	X	X
SOFTENING	X	X	X	X	X	X	X	X	X	X	X	X
TASTE ODOR	X	X	X	X	X	X	X	X	X	X	X	X
IRON REMOVAL	X	X	X	X	X	X	X	X	X	X	X	X
AMMONIATION	X	X	X	X	X	X	X	X	X	X	X	X
FLUORIDE ADJUST	X	X	X	X	X	X	X	X	X	X	X	X
DISINFECTION	X	X	X	X	X	X	X	X	X	X	X	X

18

EXHIBIT NO: PWSI.305 PAGE 1 OF 7

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 1 DATA ELEMENT NAME: PWF-ID
CATALOGUE NO: 145 DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 2 DATA ELEMENT NAME: PWF-STATE-RESERVE-FOR-STATE
CATALOGUE NO: 233 DESCRIPTION: National key is first 14 positions.

FIELD NO: 3 DATA ELEMENT NAME: PWF-MAILING-AREA-CODE
CATALOGUE NO: 156 DESCRIPTION: Bell Telephone System Area Code.

FIELD NO: 3 DATA ELEMENT NAME: PWF-MAILING-PHONE-NUMBER
CATALOGUE NO: 157 DESCRIPTION: Mailing addressee phone number.

FIELD NO: 4 DATA ELEMENT NAME: PWF-MAILING-NAME
CATALOGUE NO: 151 DESCRIPTION: The mailing name of the PWS.

FIELD NO: 4 DATA ELEMENT NAME: PWS-MAILING-STREET
CATALOGUE NO: 152 DESCRIPTION: First line of the mailing address of the PWS.

FIELD NO: 4 DATA ELEMENT NAME: PWS-MAILING-CITY
CATALOGUE NO: 153 DESCRIPTION: Second line of the mailing address of the PWS.

FIELD NO: 4 DATA ELEMENT NAME: PWF-MAILING-STATE
CATALOGUE NO: 154 DESCRIPTION: The U.S. Postal Service Zip Code the mailing address of the PWS.

FIELD NO: 5 DATA ELEMENT NAME: PWF-OWNER-TYPE
CATALOGUE NO: 237 DESCRIPTION: A code identifying the type of PWS owner.

FIELD NO: 6 DATA ELEMENT NAME: PWF-PLANT-COUNTY-CODE
CATALOGUE NO: 159 DESCRIPTION: The three digit county code as listed by STORET.

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 6
CATALOGUE NO: 183
DATA ELEMENT NAME: PWF-PLANT-POPULATION-SERVED
DESCRIPTION: Total population obtaining water from this PWS.

FIELD NO: 6
CATALOGUE NO: 184
DATA ELEMENT NAME: PWF-PLANT-SERVICES-NUMBER
DESCRIPTION: The number of service connections, not counting consecutive water systems, which use water from this PWS.

FIELD NO: 6
CATALOGUE NO: 185
DATA ELEMENT NAME: PWF-PLANT-METERS-NUMBER
DESCRIPTION: The number of service connections with water meters.

FIELD NO: 6
CATALOGUE NO: 191
DATA ELEMENT NAME: PWF-PLANT-BEGIN-DATE
DESCRIPTION: The date on which the PWS began operation.

FIELD NO: 7
CATALOGUE NO: 187
DATA ELEMENT NAME: PWF-PLANT-DESIGN-CAPACITY
DESCRIPTION: Approved design capacity in gallons or liters per day of the treatment plant.

FIELD NO: 7
CATALOGUE NO: 188
DATA ELEMENT NAME: PWF-FLANT-EMERGENCY-POWER
DESCRIPTION: The amount of water in gallons or liters per day that can be produced with power generation equipment of the PWS.

FIELD NO: 7
CATALOGUE NO: 189
DATA ELEMENT NAME: PWF-PLANT-STORAGE-CAPACITY
DESCRIPTION: The storage capacity in gallons or liters that is ready for the distribution system.

FIELD NO: 7
CATALOGUE NO: 186
DATA ELEMENT NAME: PWF-PLANT-AVERAGE-PRODUCTION
DESCRIPTION: Average annual production in gallons or liters per day in most recent year.

PROGRAM NC: PWSI120

TITLE: Conversion Data Report

FIELD NO: 7
CATALOGUE NO: 190
DATA ELEMENT NAME: PWF-PLANT-MAX-PRODUCTION
DESCRIPTION: Maximum daily production in gallons or liters per day.

FIELD NO: 8
CATALOGUE NO: 166
DATA ELEMENT NAME: PWF-PLANT-SCHOOL
DESCRIPTION: A flag to tell whether or not the PWS serves a school.

FIELD NO: 8
CATALOGUE NO: 172
DATA ELEMENT NAME: PWF-PLANT-LODGE
DESCRIPTION: A flag to tell whether or not the PWS serves a lodge.

FIELD NO: 8
CATALOGUE NO: 179
DATA ELEMENT NAME: PWF-PLANT-OTHER-AREA
DESCRIPTION: A flag to tell whether or not the PWS serves something other than those listed.

FIELD NO: 9
CATALOGUE NO: 161
DATA ELEMENT NAME: PWF-PLANT-RESIDENTIAL
DESCRIPTION: A flag to tell whether or not the PWS serves a residential area.

FIELD NO: 9
CATALOGUE NO: 167
DATA ELEMENT NAME: PWF-PLANT-MOTEL
DESCRIPTION: A flag to tell whether or not the PWS serves a motel.

FIELD NO: 9
CATALOGUE NO: 173
DATA ELEMENT NAME: PWF-PLANT-MARINA
DESCRIPTION: A flag to tell whether or not the PWS serves a marina.

FIELD NO: 10
CATALOGUE NO: 162
DATA ELEMENT NAME: PWF-PLANT-COMPANY-TOWN
DESCRIPTION: A flag to tell whether or not the PWS serves a company or town area.

FIELD NO: 10
CATALOGUE NO: 168
DATA ELEMENT NAME: PWF-PLANT-RESTAURANT
DESCRIPTION: A flag to tell whether or not the PWS serves a restaurant.

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 10 DATA ELEMENT NAME: PWF-PLANT-SKI-RESORT
CATALOGUE NO: 174 DESCRIPTION: A flag to tell whether or not the PWS serves a ski resort.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-RECREATION
CATALOGUE NO: 163 DESCRIPTION: A flag to tell whether or not the PWS serves a recreation area.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-SERVICE-STATION
CATALOGUE NO: 169 DESCRIPTION: A flag to tell whether or not the PWS serves a service station.

FIELD NO: 11 DATA ELEMENT NAME: PWF-PLANT-BATHING
CATALOGUE NO: 175 DESCRIPTION: A flag to tell whether or not the PWS serves a bathing area.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-MOBILE-HOMES
CATALOGUE NO: 164 DESCRIPTION: A flag to tell whether or not the PWS serves a mobile home park.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-CAMPGROUND
CATALOGUE NO: 170 DESCRIPTION: A flag to tell whether or not the PWS serves a campground.

FIELD NO: 12 DATA ELEMENT NAME: PWF-PLANT-VISITOR-CENTER
CATALOGUE NO: 176 DESCRIPTION: A flag to tell whether or not the PWS serves a visitor center.

FIELD NO: 13 DATA ELEMENT NAME: PWF-PLANT-INSTITUTION
CATALOGUE NO: 165 DESCRIPTION: A flag to tell whether or not the PWS serves an institution (prison, state hospital, etc.).

FIELD NO: 13 DATA ELEMENT NAME: PWF-PLANT-PICNIC-AREA
CATALOGUE NO: 171 DESCRIPTION: A flag to tell whether or not the PWS serves a picnic area.

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 13
CATALOGUE NO: 177
DATA ELEMENT NAME: PWF-PLANT-HWY-REST-AREA
DESCRIPTION: A flag to tell whether or not the PWS serves a highway rest area.

FIELD NO: 14
CATALOGUE NO: 243
DATA ELEMENT NAME: PWF-PLANT-SOURCE-NAME
DESCRIPTION: The name of the water source.

FIELD NO: 15
CATALOGUE NO: 248
DATA ELEMENT NAME: PWF-PLANT-LATITUDE
DESCRIPTION: The latitude of the water source.

FIELD NO: 16
CATALOGUE NO: 249
DATA ELEMENT NAME: PWF-PLANT-LONGITUDE
DESCRIPTION: The longitude of the water source.

FIELD NO: 17
CATALOGUE NO: 244
DATA ELEMENT NAME: PWF-PLANT-SOURCE-CODE
DESCRIPTION: A flag telling whether the water source is from surface water, ground water, purchased water, or a distribution system.

FIELD NO: 18
CATALOGUE NO: 251
DATA ELEMENT NAME: PWF-PLANT-AERATION
DESCRIPTION: A flag to tell whether or not the water source uses Aeration Treatment Method.

FIELD NO: 18
CATALOGUE NO: 252
DATA ELEMENT NAME: PWF-PLANT-PRECHLORINATION
DESCRIPTION: A flag to tell whether or not the water source uses Prechlorination Treatment Method.

FIELD NO: 18
CATALOGUE NO: 253
DATA ELEMENT NAME: PWF-PLANT-COAGULATION
DESCRIPTION: A flag to tell whether or not the water source uses Coagulation Treatment Method.

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 18 DATA ELEMENT NAME: PWF-PLANT-SEDIMENTATION
CATALOGUE NO: 254 DESCRIPTION: A flag to tell whether or not the water source uses Sedimentation Treatment Method.

FIELD NO: 18 DATA ELEMENT NAME: PWF-PLANT-FILTRATION
CATALOGUE NO: 255 DESCRIPTION: A flag to tell whether or not the water source uses Filtration Treatment Method.

FIELD NO: 18 DATA ELEMENT NAME: PWF-PLANT-CORROSION-CONTROL
CATALOGUE NO: 256 DESCRIPTION: A flag to tell whether or not the water source uses Corrosion Control Treatment Method.

FIELD NO: 18 DATA ELEMENT NAME: PWF-PLANT-SOFTENING
CATALOGUE NO: 257 DESCRIPTION: A flag to tell whether or not the water source uses Softening Treatment Method.

FIELD NO: 18 DATA ELEMENT NAME: PWF-PLANT-TASTE-ODOR
CATALOGUE NO: 258 DESCRIPTION: A flag to tell whether or not the water source uses Taste-Order Treatment Method.

FIELD NO: 18 DATA ELEMENT NAME: PWF-PLANT-IRON-REMOVAL
CATALOGUE NO: 259 DESCRIPTION: A flag to tell whether or not the water source uses Iron Removal Treatment Method.

FIELD NO: 18 DATA ELEMENT NAME: PWF-PLANT-AMMONIATION
CATALOGUE NO: 260 DESCRIPTION: A flag to tell whether or not the water source uses Ammoniation Treatment Method.

PROGRAM NO: PWSI120

TITLE: Conversion Data Report

FIELD NO: 18 DATA ELEMENT NAME: PWF-PLANT-FLUORIDE-ADJUSTMENT
CATALOGUE NO: 261 DESCRIPTION: A flag to tell whether or not the water source uses Fluoride Adjustment Treatment Method.

FIELD NO: 18 DATA ELEMENT NAME: PWF-PLANT-DISINFECTION
CATALOGUE NO: 262 DESCRIPTION: A flag to tell whether or not the water source uses Disinfection Treatment Method.

PWS1090 1 OF 1
11/18/77

PHF PURGE MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT PWSI.306

PWS1090 MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX PUBLIC HISTORY FILE PURGE REPORT
PURGE DATE: XX/XX/XX
PAGE ZZZZ9

PWS-ID	PWS NAME	CURRENT UPDATE	REGION DIST	LAST UPDATE	DATA ELEMENT CTLG.NO	NEW VALUE	OLD VALUE
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX/XX/XX	XX	XX/XX/XX	XXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1	2	3	4	5	6	7	8	9

EXHIBIT NO: PWSI.306 PAGE 1 OF 1

PROGRAM NO: PWSI090

TITLE: Public History File Purge Report

FIELD NO: 1 DATA ELEMENT NAME: PHF-PWS-ID
CATALOGUE NO: 310 DESCRIPTION: PWS-ID of corresponding PWF record.

FIELD NO: 2 DATA ELEMENT NAME: PWT-MAILING-NAME
CATALOGUE NO: 267 DESCRIPTION: Name of mailing address of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: PHF-CUR-UPDATE-DATE
CATALOGUE NO: 312 DESCRIPTION: Date on which this record was updated, converted from Julian format.

FIELD NO: 4 DATA ELEMENT NAME: PHF-STATE-REGION
CATALOGUE NO: 314 DESCRIPTION: Region within state where PWS is located.

FIELD NO: 5 DATA ELEMENT NAME: PHF-STATE-DISTRICT
CATALOGUE NO: 315 DESCRIPTION: District within region where PWS is located.

FIELD NO: 6 DATA ELEMENT NAME: PHF-LAST-UPDATE-DATE
CATALOGUE NO: 316 DESCRIPTION: Date on which the record was last updated, converted from Julian format.

FIELD NO: 7 DATA ELEMENT NAME: PHF-DATA-ELEMENT-CODE
CATALOGUE NO: 311 DESCRIPTION: Data element catalogue number of the updated data element.

FIELD NO: 8 DATA ELEMENT NAME: PHF-NEW-VALUE
CATALOGUE NO: 318 DESCRIPTION: Value of data element after the update.

FIELD NO: 9 DATA ELEMENT NAME: PHF-OLD-VALUE
CATALOGUE NO: 317 DESCRIPTION: Value of data element before the update.

PWSI070 1 of 1
1/12/77

PHF Maintenance Module
SouthWestern Ohio Regional Computer Center

EXHIBIT PWSI.307

PWSI070 MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX PUBLIC WATER SYSTEM INVENTORY UPDATE REPORT PAGE ZZZZ9
OPTION: XXXXXXXXXXXXXX ①

PWS-ID	PWS NAME	CURRENT UPDATE	REGION DIST	LAST UPDATE	DATA ELEMENT CTLG.NO	NEW VALUE	OLD VALUE
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX/XX/XX	XX XX	XX/XX/XX	XXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1	2	3	4 5	6	7	8	9

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① X's will be replaced by one of the following:

a. CURRENT UPDATES
b. ALL UPDATES

EXHIBIT NO: PWSI.307 PAGE 1 OF 1

PROGRAM NO: PWSI070

TITLE: Public Water System Inventory Update Report

FIELD NO: 1 DATA ELEMENT NAME: PHF-PWS-ID
CATALOGUE NO: 310 DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 2 DATA ELEMENT NAME: PHF-PLANT-OWNER-NAME
CATALOGUE NO: 313 DESCRIPTION: The official name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: PHF-CUR-UPDATE-DATE
CATALOGUE NO: 312 DESCRIPTION: The date on which the update occurred, converted from Julian format.

FIELD NO: 4 DATA ELEMENT NAME: PHF-STATE-REGION
CATALOGUE NO: 314 DESCRIPTION: A code identifying the administrative region of the state.

FIELD NO: 5 DATA ELEMENT NAME: PHF-STATE-DISTRICT
CATALOGUE NO: 315 DESCRIPTION: A code identifying an administrative district within a region.

FIELD NO: 6 DATA ELEMENT NAME: PHF-LAST-UPDATE-DATE
CATALOGUE NO: 316 DESCRIPTION: The date on which the previous update, if any, occurred, converted from Julian format.

FIELD NO: 7 DATA ELEMENT NAME: PHF-DATA-ELEMENT-COED
CATALOGUE NO: 311 DESCRIPTION: The data element catalogue number of the field being updated.

FIELD NO: 8 DATA ELEMENT NAME: PHF-NEW-VALUE
CATALOGUE NO: 318 DESCRIPTION: The value of the field after the update occurred.

FIELD NO: 9 DATA ELEMENT NAME: PHF-OLD-VALUE
CATALOGUE NO: 317 DESCRIPTION: The value of the field before the update occurred.

PWSI010 1 OF 1
3/2/77

PWF DATA ENTRY AND UPDATE MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT PWSI.309

PWSI010 MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
DATE XX/XX/XX PWF UPDATE STATISTICS REPORT PAGE ZZZZ9

	-- TOTAL --		RELATIVE TO THE ORIGINAL FILE	
1. NUMBER OF RECORDS ORIGINALLY ON THE FILE	ZZZ,ZZZ,ZZ9	1		
2. NUMBER OF ACCEPTABLE DATA ENTRY TRANSACTIONS	ZZZ,ZZZ,ZZ9	2		
3. NUMBER OF STANDARD ERROR RECORDS CREATED	ZZZ,ZZZ,ZZ9	3		
4. NUMBER OF RECORDS MODIFIED ON THE FILE	ZZZ,ZZZ,ZZ9	4	ZZ9 \	5
5. NUMBER OF NEW RECORDS ADDED TO THE FILE	ZZZ,ZZZ,ZZ9	6	ZZ9 \	7
6. NUMBER OF DEACTIVATED RECORDS ON THE FILE	ZZZ,ZZZ,ZZ9	8	ZZ9 \	9
7. NUMBER OF RECORDS DEACTIVATED THIS RUN	ZZZ,ZZZ,ZZ9	10		
8. NUMBER OF RECORDS DELETED THIS RUN	ZZZ,ZZZ,ZZ9	11	ZZ9 \	12
9. NUMBER OF RECORDS NOW ON THE FILE	ZZZ,ZZZ,ZZ9	13	ZZ9 \	14
10. NUMBER OF NEW PWS RECORDS	ZZZ,ZZZ,ZZ9	15		
11. NUMBER OF INCOMPLETE PWS RECORDS	ZZZ,ZZZ,ZZ9	16		
12. NUMBER OF PWS STATUS RECORDS	ZZZ,ZZZ,ZZ9	17		
13. NUMBER OF UNSUCCESSFUL UPDATE RECORDS	ZZZ,ZZZ,ZZ9	18		

EXHIBIT NO: PWSI.309 PAGE 1 OF 2

PROGRAM NO: PWSI010

TITLE: PWF Update Statistics Report

FIELD NO: 1
DESCRIPTION: An accumulation of the number of records on the PWF input file.

FIELD NO: 2
DESCRIPTION: An accumulation of the number of transactions that were error-free or were accepted with errors.

FIELD NO: 3
DESCRIPTION: An accumulation of the number of records written to the SEF.

FIELD NO: 4
DESCRIPTION: An accumulation of the number of existing records which had changes made this run.

FIELD NO: 5
DESCRIPTION: Calculation: the number of records modified divided by the number of records on the input PWF.

FIELD NO: 6
DESCRIPTION: An accumulation of the number of records added to the PWF this run.

FIELD NO: 7
DESCRIPTION: Calculation: the number of records added to the file divided by the number of records on the input PWF.

FIELD NO: 8
DESCRIPTION: An accumulation of the total number of deactivated PWS's on the output PWF.

FIELD NO: 9
DESCRIPTION: Calculation: the number of deactivated records divided by the number of records on the input PWF.

FIELD NO: 10
DESCRIPTION: An accumulation of the number of PWS's that were deactivated this run.

FIELD NO: 11
DESCRIPTION: An accumulation of the number of records deleted this run.

PROGRAM NC: PWSI010

TITLE: PWF Update Statistics Report

FIELD NO: 12
DESCRIPTION: Calculation: the number of records deleted divided by the number of records on the input PWF.

FIELD NO: 13
DESCRIPTION: An accumulation of the number of records written to the output PWF.

FIELD NO: 14
DESCRIPTION: Calculation: the number of records written to the output PWF divided by the number of records on the input PWF.

FIELD NO: 15
DESCRIPTION: An accumulation of the number of new PWS records which were created this run.

FIELD NO: 16
DESCRIPTION: An accumulation of the number of records which were missing MSIS required data and were therefore not put on the PWF.

FIELD NO: 17
DESCRIPTION: An accumulation of the number of Status Request Records that were processed.

FIELD NO: 18
DESCRIPTION: An accumulation of the number of input transactions that were not successful in updating the PWF due to errors within the transaction.

PWS1080 1 OF 1
12/14/76

PHF SELECTION MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT PWS1.311

PWS1080 MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX PUBLIC HISTORY FILE SELECTION REPORT PAGE ZZZZ9

PWS-ID	PWS NAME	CURRENT UPDATE	REGION DIST	LAST UPDATE	DATA ELEMENT CTLG.NO	NEW VALUE	OLD VALUE
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX/XX/XX	XX	XX/XX/XX	XXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX/XX/XX	XX	XX/XX/XX	XXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
1	2	3	4 5	6	7	8	9

EXHIBIT NO: PWSI.311 PAGE 1 OF 1

PROGRAM NO: PWSI080

TITLE: Public History File Selection Report

FIELD NO: 1 DATA ELEMENT NAME: PHF-PWS-ID
CATALOGUE NO: 310 DESCRIPTION: The number used to identify the Public Water System within the state.

FIELD NO: 2 DATA ELEMENT NAME: PHF-PLANT-OWNER-NAME
CATALOGUE NO: 313 DESCRIPTION: The official name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: PHF-CUR-UPDATE-DATE
CATALOGUE NO: 312 DESCRIPTION: The date on which the update occurred, converted from Julian format.

FIELD NO: 4 DATA ELEMENT NAME: PHF-STATE-REGION
CATALOGUE NO: 314 DESCRIPTION: A code identifying the administrative region of the state.

FIELD NO: 5 DATA ELEMENT NAME: PHF-STATE-DISTRICT
CATALOGUE NO: 315 DESCRIPTION: A code identifying an administrative district within a region.

FIELD NO: 6 DATA ELEMENT NAME: PHF-LAST-UPDATE-DATE
CATALOGUE NO: 316 DESCRIPTION: The date on which the previous update, if any, occurred, converted from Julian format.

FIELD NO: 7 DATA ELEMENT NAME: PHF-DATA-ELEMENT-CODE
CATALOGUE NO: 311 DESCRIPTION: The data element catalogue number of the field being updated.

FIELD NO: 8 DATA ELEMENT NAME: PHF-NEW-VALUE
CATALOGUE NO: 318 DESCRIPTION: The value of the field after the update occurred.

FIELD NO: 9 DATA ELEMENT NAME: PHF-OLD-VALUE
CATALOGUE NO: 317 DESCRIPTION: The value of the field before the update occurred.

PWSI090 1 of 1
11/18/76

PHF Purge Module
SouthWestern Ohio Regional Computer Center
EXHIBIT PWSI.312

PWSI090

MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX

PUBLIC HISTORY FILE PURGE STATISTICS REPORT

PAGE ZZZZ9

	-- TOTAL --	% RELATIVE TO THE ORIGINAL FILE
1. NUMBER OF RECORDS ORIGINALLY ON THE FILE	ZZZ,ZZZ,ZZ9 1	
2. NUMBER OF RECORDS PURGED THIS RUN	ZZZ,ZZZ,ZZ9 2	ZZ9% 3
3. NUMBER OF RECORDS NOW ON THE FILE	ZZZ,ZZZ,ZZ9 4	ZZ9% 5

EXHIBIT NC: PWSI.312 PAGE 1 OF 1

PROGRAM NO: PWSI090

TITLE: Public History File Purge Statistics Report

FIELD NO: 1
DESCRIPTICN: An accumulation of the number of records on the input PHF.

FIELD NO: 2
DESCRIPTICN: An accumulation of the number of records purged from the PHF.

FIELD NO: 3
DESCRIPTICN: A calculation; the number of records purged divided by the number of records originally on the PHF.

FIELD NO: 4
DESCRIPTION: An accumulation of the number of records written to the output PHF.

FIELD NO: 5
DESCRIPTICN: A calculation; the number of records written to the output PHF divided by the number of records originally on the PHF.

PWSI130 1 of 1
1/25/77

PUBLIC WATER TABLE CREATE

SouthWestern Ohio Regional Computer Center

PWSI.314

PWSI130

DATE XX/XX/XX

MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

PUBLIC WATER TABLE STATISTICS REPORT

PAGE ZZZZ9

	-- TOTAL --	
1. NUMBER OF RECORDS ON THE PUBLIC WATER FILE	ZZZ,ZZZ,ZZ9	1
2. NUMBER OF RECORDS WRITTEN TO THE PUBLIC WATER TABLE	ZZZ,ZZZ,ZZ9	2

EXHIBIT NO: PWSI.314 PAGE 1 OF 1

PROGRAM NO: PWSI130

TITLE: Public Water Table Statistics Report

FIELD NO: 1
DESCRIPTION: An accumulation of the number of records on the input PWF.

FIELD NO: 2
DESCRIPTION: An accumulation of the number of records written to the PWT.

4. Error Messages and Remedial Actions

Error messages other than those from the Error Message Table (EMT) and the Standard Error Messages for Processing Options are listed in program number sequence, along with their remedial actions, if any.

a. PWSI010 - PWF Data Entry & Update

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records.

MESSAGE: WARNING - NEW PWS REPORT OPTION HAS DEFAULTED TO 1
REMEDIAL ACTION: None. This means that no new PWS Report will be produced.

MESSAGE: WARNING - INCOMPLETE RPT OPTION HAS DEFAULTED TO 3
REMEDIAL ACTION: None. This means that a file to produce the Comprehensive Report will be created.

MESSAGE: WARNING - STATUS REPORT OPTION HAS DEFAULTED TO 3
REMEDIAL ACTION: None. This means that a file to produce the Comprehensive Report will be created.

MESSAGE: WARNING - UNSUCCESSFUL RPT OPT HAS DEFAULTED TO 3
REMEDIAL ACTION: None. This means that a file to produce the Comprehensive Report will be created.

b. PWSI020 - PWP Selection

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records, SORT Records, and SEL1 and SEL2 Records.

MESSAGE: ERROR - NO REPORT-VALUE SUPPLIED IN PROC CARD
REMEDIAL ACTION: return all options to data entry

MESSAGE: ERROR - PW DATA ELEMENT TABLE TOO LARGE OR MISSING
REMEDIAL ACTION: check to see if DET was available, if not, rerun job. If DET was entered, it was too large and job will require programming change before it can be run successfully.

MESSAGE: ERROR - THE MONTH OR YEAR IN THE VALUE IS INVALID
REMEDIAL ACTION: check for valid date in comparative value, if not, return all options to data entry.

MESSAGE: ERROR - THE MONTH OR DAY IN THE VALUE IS INVALID
REMEDIAL ACTION: check for valid date in comparative value, if not, return all options to data entry.

MESSAGE: ERROR - DECIMAL VALUE TOO LONG OR NOT NUMERIC
REMEDIAL ACTION: check for keypunch error, if not, return all options to data entry.

MESSAGE: ERROR - VALUE FIELD IN THE SEL1 NOT NUMERIC
REMEDIAL ACTION: check for keypunch error, if not, return all options to data entry.

c. PWSI030 - Condensed Report

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records and SORT Records.

MESSAGE: ERROR - EXCESSIVE ENTRIES ON DET TABLE

REMEDIAL ACTION: notify programming that the PWS DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - SORT CARD CONTAINS NO OPTIONS

REMEDIAL ACTION: check for keypunch errors. If none, return input form to data entry to complete form and rerun job.

d. PWSI040 - Production Data Report

Any error messages that dc not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records and SORT Records.

MESSAGE: ERROR - EXCESSIVE ENTRIES ON DET TABLE
REMEDIAL ACTION: notify programming that the PWS DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - SORT CARD CONTAINS NO OPTIONS
REMEDIAL ACTION: check fcr keypunch errors. If none, return input form to data entry to complete form and rerun job.

e. PWSI050 - State Discretionary Data Report

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records and SORT Records.

MESSAGE: ERROR - EXCESSIVE ENTRIES ON DET TABLE
REMEDIAL ACTION: notify programming that the PWS DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - SORT CARD CONTAINS NO OPTIONS
REMEDIAL ACTION: check for keypunch errors. If none, return input form to data entry to complete form and rerun job.

f. PWSI060 - Comprehensive Report

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records and SORT Records.

MESSAGE: ERROR - NO INPUT FILE HAS BEEN SPECIFIED
REMEDIAL ACTION: return all options to data entry.

MESSAGE: ERROR - RESTART TYPE NOT VALID IN OPTIONS RECORD
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - RESTART NUMBER IS INVALID
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - TWO RESTART RECORDS SUPPLIED
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - TWO RESTART RECORDS SUPPLIED
REMEDIAL ACTION: return all options to data entry.

MESSAGE: ERROR - EXCESSIVE ENTRIES ON DET TABLE
REMEDIAL ACTION: notify programming that DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - SORT CARD CONTAINS NO OPTIONS
REMEDIAL ACTION: return all options to data entry.

g. PWSI070 - PHF Maintenance

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records and SORT Records.

MESSAGE: ERROR - OPTIONS TYPE NOT PROC OR SORT RECORD
REMEDIAL ACTION: check for keypunch error, if not, return to data entry.

MESSAGE: ERROR - REPORT OPTION HAS INVALID CODE
REMEDIAL ACTION: check for keypunch error, if not, return to data entry.

MESSAGE: ERROR - PH DATA ELEMENT TABLE WAS NOT PROVIDED
REMEDIAL ACTION: mount Public History DET for use by this program.

MESSAGE: ERROR - PW DATA ELEMENT TABLE WAS NOT PROVIDED
REMEDIAL ACTION: mount PWF DET for use by this program.

MESSAGE: ERROR - PH DATA ELEMENT TABLE EXCEEDS LIMIT
REMEDIAL ACTION: notify programming that the PHF DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - PW DATA ELEMENT TABLE EXCEEDS LIMIT
REMEDIAL ACTION: notify programming that the PWF DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - SORTING INFORMATION IS NOT PROVIDED
REMEDIAL ACTION: return all options to data entry.

h. PWSI080 - PHF Selection

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records, SORT Records, and SEL1 and SEL2 Records.

MESSAGE: ERROR - NO PH DATA ELEMENT TABLE WAS PROVIDED
REMEDIAL ACTION: mount PWF DET for use by this program.

i. PWSI090 - PHF Purge

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records.

MESSAGE: ERROR - RECORD TYPE NOT PROC RECORD
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - PROC RECORD CONTAINS AN INVALID PURGE DATE
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - PROC RECORD CONTAINS AN INVALID REPORT OPT
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

j. PWSI120 - Convert National Inventory

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records.

MESSAGE: REQUESTED STATE NOT ON FILE
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - STATE CODE INVALID
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

k. PWSI130 - Create PWT

Any error messages that appear for this program can be found in Standard Error Messages and Remedial Actions for PROC records.

B. Regulations Subsystem (REGS)

1. General Description

The Regulations Subsystem (REGS) is a mandatory subsystem. The Regulations File (RGF) is a file containing a record for every contaminant that is regulated. Each record indicates if the contaminant is regulated by the Federal Regulations as defined in the Interim Primary Drinking Water Regulation or by State Regulations. Where contaminants such as Bacteriological contaminants are regulated by both State and Federal regulations, State regulations are used for monitoring drinking water quality compliance, and the Federal regulations are used to identify violations that must be reported to EPA. In other words, State regulations take precedence over Federal regulations in determining compliance.

Drinking water quality is determined by comparing the results of laboratory analysis with the requirements of the Interim Primary Drinking Water Regulations. These regulations specify the number of samples required, analysis methods allowed, and contaminant levels permitted. In some instances Federal standards are modifiable by the states (for example, as in 141.27, using alternative analytical techniques). A State may also choose to enforce its own, more stringent standards, in which case, a Public Water System (PWS) may be in violation of the state's standards, but not of the Federal standards. In addition, a state may also grant variances and exemptions from both the Federal and its own standards.

REGS is used by the Water Quality Compliance Subsystem (WAQC) to allow determination of violations by the PWS's.

2. How to Enter Data

The following instructions are in narrative form to be used as an educational tool for a user who is new to MSIS. A quick reference guide can be found in the Data Entry Instruction Manual for each of the input documents relative to this subsystem. They are arranged numerically by exhibit number.

EXHIBIT NO: REGS.100
DESCRIPTION: This is the PROC option for program module REGS010, RGF Creation. The date is used in the report header.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-There are two Standard Error Processing Options. The first is used to indicate whether or not a special output file of error records will be produced. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices. The second option is used to determine whether the entire transaction or only those fields which are in error should be printed on the error report. The instructions are self-explanatory.

EXHIBIT NO: REGS.101
DESCRIPTION: This form is used to establish regulations for Chemical Sampling of community and non-community water supplies in program module REGS010.

-The Contaminant ID should be coded as a valid ID from contaminant groups 1, Organic Chemicals, or 2, Inorganic Chemicals, as L in Appendix E, Code Value Tables, of the Data Element Dictionary.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary; "SP", State Primary; and "SS", State Secondary.

-The code for the Reason For Monitoring should be selected from the list of valid codes in Appendix A.

-The Chemical Name should be entered whenever possible, but will be generated in the RGF from the Contaminant ID if it is left blank.

-MCL Units should be coded as the abbreviation of the unit of measure used for the MCL, such as MG/L for milligrams per liter.

-The MCL should be entered for the specified contaminant. DO NOT enter the decimal point, code only the number.

-The MCL Decimals is used to specify the number of positions used to the right of where the decimal point would be in the MCL. These two fields are used in combination to give the actual MCL with the decimal point inserted in the proper place.

-To aid in editing sampling data, MSIS requests that Reasonable Bounds be entered to limit the possibility of data entry error. They are to be coded in the same manner as the MCL and MCL Decimals.

-The number of Check Samples will default to that of the Federal Regulations if left blank.

-If this is an Organic Chemical being coded, Seasonal Sampling should be coded.

-If the chemical being coded is Fluoride, the Special Computation should be coded.

-If the chemical being coded is Nitrate, the Maximum Time should be coded showing the number of hours between the first and second sampling if the first sample is found to be in violation.

-For chemicals other than Nitrate, the Period should be coded showing the number of days between the first and second sampling if the first sample is found to be in violation.

-Columns 51 thru 80 differ depending on whether the regulation concerns a community or non-community PWS. (Actually, the only chemical that is monitored for a non-community PWS is Nitrate.) Both a "C1" and "C2" entry should be made when coding community and non-community for the same chemical.

-Additionally, the Federal Regulations say that for all inorganic chemicals other than Nitrate, the State is responsible for establishing sampling frequencies when there is a violation. And for organic chemicals, the State is responsible for establishing sampling frequencies for ground water sources. So, even though the installation tape supplies the Federal Regulations, this form will have to be coded in columns 1 thru 6 and 51 thru 80 for those chemical regulations for which the state has discretionary enforcement responsibility.

-The Effective Date should be coded with the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The Years to First Sample field is applicable to community water systems only. The Federal default applies only to inorganic chemicals.

-The Normal Sampling Frequency is expressed in days and will also use the Federal default only for inorganic chemicals.

-The Minimum Sampling Frequency is also expressed in days and must be filled in for State Primary Regulations as mentioned above.

-The Minimum Number of Negative Samples is the number of samples showing no violation that must be taken in succession before the violation can be cleared.

EXHIBIT NO: REGS.102
DESCRIPTION: This form is used to establish regulations for Turbidity Contamination of community and non-community surface water sources in program module REGS010.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary; "SP", State Primary; and "SS", State Secondary.

-Code the MCL expressed in Turbidity Units as established by a monthly average of daily samples.

-Code the MCL For Consecutive Samples in Turbidity Units as established by an average for a given number of consecutive daily samples.

-The Number of Consecutive Samples should equal the number of consecutive days used in calculating the average of the previous field.

-Code the Effective Date as the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-If Turbidity is to be monitored in sources other than surface, code a "Y" in the next field. If any of the above fields are left blank, the Federal default will be used.

-If repeat samples are to be used in the calculation of the monthly average of daily samples, code a "Y" in the next field. If left blank, the default of "Y" will be used.

-Enter the frequency in hours between samples for community and non-community sampling.

-Enter the maximum time in minutes for Resampling if the MCL is exceeded. The last three fields will use the Federal default if not coded.

EXHIBIT NO: REGS.103
DESCRIPTION: This form is used to establish the population table for the regulations for Bactericlogical monitoring of community and non-community water systems in program module REGS010.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Seccndary; "SP", State Primary; and "SS", State Secondary.

-When coding the minimum and maximum population, it is necessary to refer to the Federal Regulations, 141.21 (b), Population Table. This table will be supplied on the installation tape. The problem lies in coding the State table if the population served is divided in a manner other than that of the Federal Table. The user must keep in mind that if there are to be State Regulations they must be more stringent than the Federal. For example, consider the case where the State population ranges are different. Say that the first range is 25 to 5,000. Notice that the upper limit comes in the Federal range of 4,901 to 5,800 which has a minimum number of 6 samples per month. In order for the State Regulation to be more stringent, the minimum number of samples for the state must be at least 6. Similarly, if the State's second range is 5,000 to 10,000 the minimum number of samples should be at least 8 per month. The number of samples is a direct function of the upper limit of the range in comparison to the Federal Regulations.

EXHIBIT NO: REGS.104
DESCRIPTION: This form is used to establish regulations for Bacteriological Contaminants of community and non-community water supplies in program module REGS010.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary; "SP", State Primary; and "SS", State Secondary.

-Code the Effective Date as two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-If any of the fields on this form are left blank, the Federal Regulation default will be used.

-The MCL's are interpreted somewhat differently for each type of analysis method. With the membrane filter method, the MCL is the number of coliform bacteria per 100 ml in any single sample; the monthly MCL is the arithmetic mean of all samples examined per month. Whereas, for the fermentation tube methods, the MCL is expressed as the number of positive portions in a single sample, and the monthly MCL is the maximum number of positive portions as a <u>percent</u> of the total monthly samples.

-The next three fields are the same type of entry for all three methods. The Percent of Samples is an alternate method of analysis where a percentage of the samples must not exceed a certain MCL. Enter the percent to be used for this method. Enter the minimum number of samples required to use the percent method in the next field. Then enter the MCL to be used with the percent method.

-According to Federal Regulations, if a community water supply serving 25 to 1,000 persons has a history of no coliform bacteria and a sanitary survey has shown that the system is supplied solely by a protected ground water source free of sanitary defects, the PWS may waive the monthly sampling frequency and reduce it to a minimum of one sample per quarter. The next two fields address that situation.

-If a single sample is in violation, exceeds 4 coliform bacteria per 100 ml, at least two consecutive daily check samples shall be collected. Additional check samples shall be collected daily or at a frequency established by the state until at least 2 consecutive samples show less than 1 coliform bacteria per 100 ml. This situation is addressed by columns 53 thru 56.

-If the State decides to establish a minimum of greater than two consecutive good samples to clear the violation, column 53 should be coded with the number of consecutive samples the state desires.

-Similarly, the number of consecutive samples should be coded for the next two fields.

-With the approval of the State and a Sanitary Survey, a PWS may substitute the Chlorine Residual Method of analysis for up to 75% of the samples required to be taken. At least four samples per day must be taken in lieu of one regular sample per day. Columns 57 thru 64 address this option.

-The number of samples must be at least four and the maximum percent can be no greater than 75.

-The minimum chlorine level must be no less than 0.2 mg/l and must be entered as one digit and one decimal. The maximum time to retest must be entered in minutes. There is no absolute maximum, but the Federal Regulations state, "preferably within one hour".

-Columns 65 thru 74 address regulations for non-community PWS's.

-The effective date is coded as the two digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-If the sampling will be done seasonally, enter a "Y" in column 71; if not, enter an "N".

-The period is to be coded either "Q" for quarterly or "M" for monthly.

-The number of samples per period is self-explanatory.

EXHIBIT NO: REGS.105
DESCRIPTION: This form is used to establish the air temperature ranges used in the analysis of Fluoride as a contaminant in program module REGS010

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary; "SP", State Primary; "SS", State Secondary.

-When coding the lower and upper limits, it is necessary to refer to the Federal Regulations, 141.11(c). This table will be supplied on the installation tape. The problem lies in coding the State table if the temperature ranges are set up in a different manner than that of the Federal Regulations. The user must keep in mind that if there are to be State Regulations, they must be more stringent than the Federal Regulations. In all cases, the Federal default will be used if any of the fields are left blank. For example, let the first range be 50.0 degrees farenheit and below and the second be 50.1 to 60.0. The first range must have an MCL of at least 2.4 mg/l. The second range must have an MCL of at least 2.0 mg/l. The MCL is a direct function of the upper limit of the range in comparison to the Federal Table. In anticipation of conversion to the Metric system, both Farenheit and Celcius temperatures are requested.

-The MCL is recorded assuming the decimal pcint to be between positions 23 and 24.

-Reasonable bounds are requested to aid in editing input data and to aid in data entry to the MSIS system.

EXHIBIT NO: REGS.106
DESCRIPTION: This form is used to establish regulations for Radiological contamination of major Beta emitters in program module REGS010.

-The Regulation Level can be one of four codes: "PP", Federal Primary; "PS", Federal Seccndary; "SP", State Primary; "SS", State Secondary.

-The Effective Date should be coded as the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-Refer to the list of standard Beta Emitter Contaminant ID codes in Appendix B of the Data Element Dictionary for the proper codes. Note that the Contaminant group number, 4, is preprinted on the form.

-If the Contaminant Name is left blank, the name will be generated by the program from the corresponding code value of the Contaminant ID.

-The annual concentration equivalent is entered in picoCuries per liter assuming the decimal point to be between positions 33 and 34.

-The detection limit is the minimum instrument detection limit expressed in picoCuries per liter. The Federal default will apply to both of the above fields if they are left blank.

-Up to five different types of nuclear facilities may be entered for each Beta emitter. The codes can be found in Appendix B of the Data Element Dictionary.

EXHIBIT NO: REGS.107
DESCRIPTION: This form is used to establish regulations for Radiological Contamination of Gross Alpha Radionuclide Contamination in program module REGS010.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary; "SP", State Primary; "SS", State Secondary.

-The Effective Date should be coded as the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The MCL and Screening Levels are contained in columns 24 thru 29. Enter the Gross Alpha MCL expressed in picoCuries per liter. The decimal point is assumed between columns 25 and 26.

-Enter the Combined Radium MCL for both 226 and 228 expressed in picoCuries per liter. The assumed decimal point is between columns 28 and 29.

-Maximum Screening Levels are contained in columns 30 thru 35. Enter the screening level <u>without</u> Radium-228 in columns 30 thru 32. The assumed decimal point is between columns 31 and 32. Enter the screening level <u>with</u> Radium-228 in columns 33 thru 35. The assumed decimal point is between columns 34 and 35.

-The Maximum Radium-226 Screening Level is contained in columns 36-41. Enter the screening level for Radium-228 under Radium-226 in columns 36 thru 38. The assumed decimal point is between columns 37 and 38. Enter the screening level for Radium-226 if monitoring is to be done annually in columns 39 thru 41. The assumed decimal point is between columns 40 and 41.

-The Sampling and Analysis requirements are contained in columns 42 thru 51.

-Enter the Number of Consecutive Quarterly Samples that are taken within one compliance period. If it is to be a composite sample, enter the number of consecutive quarters represented by the sample. Enter the Monitoring Period in column 43 expressed in years.

-Enter the Initial Monitoring Period in columns 44 thru 45, expressed in months, for a new PWS water source in a community water system.

-The fraction of MCL is a decimal fraction to be applied against the actual MCL (columns 24 thru 29) when the user is substituting quarterly sampling with a single annual sample. The decimal point is assumed to be before column 46.

-The Monitoring Frequency, if the PWS is in violation, is expressed in months.

-The PWS has the option of reporting an annual composite sample rather than a multiple sample average at the discretion of the State Regulations. Enter an "A" if the PWS's are required to send single sample quarterly results. If all PWS's are required to submit a composite sample, enter a "C" in column 50, otherwise enter a "B", meaning that both types of sampling are allowed.

-If the above regulations are to apply only to community water supplies, enter a "C" in column 51. If they are to apply to non-community water supplies only, enter an "N". If they are to apply to both community and non-community water supplies, enter a "B".

EXHIBIT NO: REGS.108
DESCRIPTION: This form is used to establish regulations for Gross Beta Radionuclides Contamination.

-The Regulation Level can be one of four codes: "FP", Federal Primary; "FS", Federal Secondary; "SP", State Primary; "SS", State Secondary.

-The Effective Date should be coded as the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The MCL and Screening Levels are included in columns 23 thru 32. The annual MCL dosage expressed in millirems per year shall not exceed 04 per Federal Regulations.

-The Screening Levels are expressed in picoCuries per liter. The Tritium screening level which equates to a dosage of 4 millirems is 20,000 pCi/liter. The Strontium-90 level equates to a 2 pCi/liter. These Federal figures will be used as defaults if these fields are not filled in.

-The Maximum Gross Beta Screening Levels are included in columns 33 thru 41. They are divided into levels for PWS's which have no contamination from a nuclear facility and for those PWS's which do have contamination from a nuclear facility.

-Additionally, there is a level for those PWS's contaminated by a nuclear facility for Strontium-90 and Cesium-134.

-Sampling and Analysis Requirement follow in columns 42 thru 66. First there are general statistics in columns 42 thru 50.

-Enter the type of PWS to which these regulations should be applied. A "C" represents a community PWS. An "N" represents a non-community PWS. A "B" represents both community and non-community PWS's.

-If the regulations are to apply to those PWS's with ground water sources only, enter a "Y" in column 43. Otherwise, the Federal default of "N" will be used.

-For the type of sampling required enter an "A" if single samples are required, a "C" if a composite sample is required, or a "B" if both are acceptable.

-Enter the Minimum Population required for annual monitoring.

-Those PWS's which have no contamination caused by nuclear facilities are included in columns 51 thru 54. Enter the Number of Consecutive Quarterly Samples required initially in column 51. If composite sampling is being used, enter the number of quarters represented by the composite.

-Enter the Normal Monitoring Frequency expressed in years in column 52.

-Enter the Monitoring Frequency expressed in months for a PWS which has been in violation.

-The regulations for a PWS which has been contaminated by a nuclear facility are included in columns 55 thru 66. The number of samples per year for Iodine-131 should be the <u>total</u> number of samples required for one analysis period. For example, if five consecutive daily samples are analyzed on a composite basis and composite analysis results are obtained quarterly for one year, then the value entered should be 5 samples x 4 quarters/year = 20. The number should be calculated similarly for Strontium-90 and Tritium.

-Normal Monitoring Frequencies should be expressed in months when not in violation.

-Finally, enter the Total Number of Consecutive Daily Samples required for quarterly reporting of Iodine-131 contamination.

EXHIBIT NO: REGS.109
DESCRIPTION: This PROC option is used with program module REGS020, BGP Report. The date is used in the report header.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

3. Output Reports

Each report created by this subsystem is explained in detail, field by field, telling from where the data was obtained and how it was manipulated, if at all. They are arranged numerically by exhibit number.

REGS020 1 of 1
9/23/76

RGF Report Module
SouthWestern Ohio Regional Computer Center

EXHIBIT REGS.301

MODEL STATE INFORMATION SYSTEM
REGULATIONS SUBSYSTEM

REGS#2#
DATE XX/XX/XX

REGULATIONS REPORT - CHEMICAL CONTAMINANTS

PAGE #####

CONTAMINANT ID: 1 9999
REGULATION/LEVEL: 2 XX
CHEMICAL NAME: 3 XXXXXXXXXX
REASON FOR MONITORING: 4 X

MCL UNITS: 5 XXXXXX
MCL: 6 ######
MCL DECIMALS: 7 9
REASONABLE BOUNDS — LOWER: ##### 8 DECIMALS: 9 — UPPER: ##### 10 DECIMALS: 9 11
NUMBER OF CHECK SAMPLES REQUIRED IF REGULAR SAMPLE VIOLATES MCL: 9 12

SEASONAL SAMPLING (ORGANIC ONLY): X 13
SPECIAL COMPUTATION: X 14
MAXIMUM TIME TO INITIATE SECOND SAMPLE ANALYSIS IF REGULAR SAMPLE IS IN VIOLATION (NITRATE ONLY): ## 15
PERIOD WITHIN WHICH CHECK SAMPLES MUST BE MADE: #9 16

PWS TYPE	EFFECTIVE DATE	MONITORING REQUIREMENTS SOURCE TYPE	MONITORING REQUIREMENTS YEARS TO FIRST SAMPLE	NORMAL SAMPLING FREQUENCY	IF MCL IS VIOLATED: MINIMUM SAMPLING FREQUENCY	IF MCL IS VIOLATED: MINIMUM NUMBER OF SUCCESSIVE NEGATIVE SAMPLES
COMMUNITY	XX/XX/XX 17	GROUND	9 18	#### 19	#### 20	#9 21
		SURFACE	9 22	#### 23	#### 24	#9 25
NON-COMMUNITY	XX/XX/XX 26	GROUND	9 27	#### 28	#### 29	#9 30
		SURFACE	9 31	#### 32	#### 33	#9 34

EXHIBIT NO: REGS.301 PAGE 1 OF 5

PROGRAM NO: REGS020

TITLE: Regulations Report - Chemical Contaminants

FIELD NO: 1 DATA ELEMENT NAME: RGF-CONTAMINANT-ID
CATALOGUE NO: 041 DESCRIPTION: A four digit number for identifying a contaminant.

FIELD NO: 2 DATA ELEMENT NAME: RGF-CHEM-REGV-LEVEL
CATALOGUE NO: 042 DESCRIPTION: Indicates whether the regulations are State or Federal and if it is a primary or secondary regulation.

FIELD NO: 3 DATA ELEMENT NAME: RGF-CHEM-CONTAM-NAME
CATALOGUE NO: 043 DESCRIPTION: The scientific name of a contaminant.

FIELD NO: 4 DATA ELEMENT NAME: RGF-CHEM-REASON-CODE
CATALOGUE NO: 044 DESCRIPTION: The code indicating the reason for including a chemical as a contaminant in the regulations.

FIELD NO: 5 DATA ELEMENT NAME: RGF-CHEM-MCL-UNITS
CATALOGUE NO: 045 DESCRIPTION: Name of the units used to measure contaminat level.

FIELD NO: 6 DATA ELEMENT NAME: RGF-CHEM-MCL
CATALOGUE NO: 046 DESCRIPTION: The maximum or minimum level defined by State or Federal regulations for each contaminant.

FIELD NO: 7 DATA ELEMENT NAME: RGF-CHEM-MCL-DECIMALS
CATALOGUE NO: 047 DESCRIPTION: Number of decimal places in the applicable MCL.

FIELD NO: 8 DATA ELEMENT NAME: RGF-CHEM-MCL-LOW-LIMIT
CATALOGUE NO: 048 DESCRIPTION: The lowest reasonable value of analysis result.

FIELD NO: 9 DATA ELEMENT NAME: RGF-CHEM-MCL-LOW-DECIMALS
CATALOGUE NO: 049 DESCRIPTION: The number of decimal places in RGF-CHEM-MCL-LOW-LIMIT.

FIELD NO: 10 DATA ELEMENT NAME: RGF-CHEM-MCL-HIGH-LIMIT
CATALOGUE NO: 050 DESCRIPTION: The highest reasonable value of the analysis result.

PROGRAM NO: REGS020

TITLE: Regulations Report - Chemical Contaminants

FIELD NO: 11 DATA ELEMENT NAME: RGF-CHEM-MCL-HIGH-DECIMALS
CATALOGUE NO: 051 DESCRIPTION: The number of decimal places in RGF-CHEM-MCL-HIGH-LIMIT.

FIELD NO: 12 DATA ELEMENT NAME: RGF-CHEM-MCL-CHECK-SAMPLES
CATALOGUE NO: 052 DESCRIPTION: The number of inital check samples required when the chemical MCL is violated.

FIELD NO: 13 DATA ELEMENT NAME: RGF-CHEM-MCL-SEASONAL-CODE
CATALOGUE NO: 053 DESCRIPTION: A flag indicating whether seasonal sampling applies to a contaminant.

FIELD NO: 14 DATA ELEMENT NAME: RGF-CHEM-MCL-SPECIAL-CODE
CATALOGUE NO: 054 DESCRIPTION: Code used to describe special considerations when comparing analysis results to the MCL. Applies to Fluoride only.

FIELD NO: 15 DATA ELEMENT NAME: RGF-CHEM-MCL-MIN-TIME
CATALOGUE NO: 055 DESCRIPTION: The maximum time, expressed in hours, to initiate second sample analysis if regular sample is in violation. Applies to Nitrate only.

FIELD NO: 16 DATA ELEMENT NAME: RGF-CHEM-MCL-CHECK-PERIOD
CATALOGUE NO: 056 DESCRIPTION: The period, expressed in days, during which the initial check samples must be taken if a regular sample is in violation.

FIELD NO: 17 DATA ELEMENT NAME: RGF-CHEM-COM-EFFECTIVE-DATE
CATALOGUE NO: 057 DESCRIPTION: The date on which the regulation became effective.

PROGRAM NO: REGS020

TITLE: Regulations Report - Chemical Contaminants

FIELD NO: 18
CATALOGUE NO: 058
DATA ELEMENT NAME: RGF-CHEM-COM-GRD-YRS-FST
DESCRIPTION: The number of years during which the first water sample must be taken and analyzed for ground water, Community Water Systems.

FIELD NO: 19
CATALOGUE NO: 059
DATA ELEMENT NAME: RGF-CHEM-COM-GRD-SAMPLE-FREQ
DESCRIPTION: The sampling frequency, expressed in days for ground water, Community Water Systems.

FIELD NO: 20
CATALOGUE NO: 060
DATA ELEMENT NAME: RGF-CHEM-COM-GRD-VIOL-FREQ
DESCRIPTION: The sampling frequency, expressed in days, when the chemical MCL is in violation for ground water, Community Water Systems.

FIELD NO: 21
CATALOGUE NO: 061
DATA ELEMENT NAME: RGF-CHEM-COM-GRD-MIN-NEG
DESCRIPTION: Minimum number of successive negative samples to return to normal frequency when the chemical MCL is in violation for ground water, Community Water Systems.

FIELD NO: 22
CATALOGUE NO: 062
DATA ELEMENT NAME: RGF-CHEM-COM-SUR-YRS-FST
DESCRIPTION: The number of years during which the first water sample must be taken and analyzed for surface water, Community Water Systems.

FIELD NO: 23
CATALOGUE NO: 063
DATA ELEMENT NAME: RGF-CHEM-COM-SUR-SAMPLE-FREQ
DESCRIPTION: The sampling frequency for analysis, expressed in days, for surface water, Community Water Systems.

FIELD NO: 24
CATALOGUE NO: 064
DATA ELEMENT NAME: RGF-CHEM-COM-SUR-VIOL-FREQ
DESCRIPTION: The sampling frequency, expressed in days, when the chemical MCL is violated for surface water, Community Water Systems.

PROGRAM NO: REGS020

TITLE: Regulations Report - Chemical Contaminants

FIELD NO: 25 DATA ELEMENT NAME: RGP-CHEM-COM-SUR-MIN-NEG
CATALOGUE NO: 065 DESCRIPTION: The minimum number of successive negative samples to return to normal frequency when the chemical MCL is violated for surface water, Community Water System.

FIELD NO: 26 DATA ELEMENT NAME: RGP-CHEM-NCOM-EFFECTIVE-DATE
CATALOGUE NO: 066 DESCRIPTION: The date on which the regulation becomes effective.

FIELD NO: 27 DATA ELEMENT NAME: RGP-CHEM-NCOM-GRD-YRS-FST
CATALOGUE NO: 067 DESCRIPTION: The number of years during which the first water sample must be taken and analyzed for a ground water, Non-Community Water System.

FIELD NO: 28 DATA ELEMENT NAME: RGP-CHEM-NCOM-GRD-SAMPLE-FREQ
CATALOGUE NO: 068 DESCRIPTION: The sample frequency for analysis, expressed in days, for a ground water, Non-Community Water System.

FIELD NO: 29 DATA ELEMENT NAME: RGP-CHEM-NCOM-GRD-VIOL-FREQ
CATALOGUE NO: 069 DESCRIPTION: The sampling frequency, expressed in days, when the chemical MCL is violated for a ground water, Non-Community Water System.

FIELD NO: 30 DATA ELEMENT NAME: RGP-CHEM-NCOM-GRD-MIN-NEG
CATALOGUE NO: 070 DESCRIPTION: The minimum number of successive negative samples to return to normal sampling frequency when the MCL is violated for a ground water, Non-Community Water System.

FIELD NO: 31 DATA ELEMENT NAME: RGP-CHEM-NCOM-SUR-YRS-FST
CATALOGUE NO: 071 DESCRIPTION: The number of years during which the first water sample must be taken and analyzed for a surface water, Non-Community Water System.

PROGRAM NO: REGS020

TITLE: Regulations Report - Chemical Contaminants

FIELD NO: 32
CATALOGUE NO: 072
DATA ELEMENT NAME: RGF-CHEM-NCOM-SUR-SAMPLE-FREQ
DESCRIPTION: The sampling frequency for analysis, expressed in days for a surface water, Non-Community Water System.

FIELD NO: 33
CATALOGUE NO: 073
DATA ELEMENT NAME: RGF-CHEM-NCOM-SUR-VIOL-FREQ
DESCRIPTION: The sampling frequency, expressed in days, when the chemical MCL is violated for a surface water, Non-Community Water System.

FIELD NO: 34
CATALOGUE NO: 074
DATA ELEMENT NAME: RGF-CHEM-NCOM-SUR-MIN-NEG
DESCRIPTION: The minimum number of successive negative samples to return to normal frequency when the MCL is violated for surface water, Non-Community Water System.

REGS020 1 of 1
9/23/76

RGP Report Module
SouthWestern Ohio Regional Computer Center
EXHIBIT REGS.302

REGS020

MODEL STATE INFORMATION SYSTEM
REGULATIONS SUBSYSTEM

DATE XX/XX/XX

REGULATIONS REPORT - TURBIDITY CONTAMINANT

PAGE 88888

CONTAMINANT ID
0100

REGULATION/LEVEL
XX
1

CONTAMINANT NAME
TURBIDITY

MCL FOR MONTHLY AVERAGE
89
2

MCL FOR CONSECUTIVE SAMPLES
89
3

NUMBER OF CONSECUTIVE SAMPLES
89
4

EFFECTIVE DATE
5 XX/XX/XX

APPLY TO ALL SOURCES
X
6

INCLUDE REPEAT SAMPLES IN AVERAGE
X
7

FREQUENCY OF MONITORING

COMMUNITY PWS: 889
8

NON-COMMUNITY PWS: 889
9

MINIMUM RESAMPLING PERIOD IF MCL EXCEEDED
89
10

EXHIBIT NO: REGS.302 PAGE 1 OF 2

PROGRAM NO: REGS020

TITLE: Regulations Report - Turbidity Contaminant

FIELD NO: 1 DATA ELEMENT NAME: RGF-TURB-REGU-LEVEL
CATALOGUE NO: 134 DESCRIPTION: Indicates if the regulation is a State or Federal regulation and if it is a primary or secondary regulation.

FIELD NO: 2 DATA ELEMENT NAME: RGF-TURB-MONTHLY-MCL
CATALOGUE NO: 136 DESCRIPTION: The MCL for the monthly average of daily samples, expressed in Turbidity Units, used to determine compliance with regulations of turbidity contaminants.

FIELD NO: 3 DATA ELEMENT NAME: RGF-TURB-CONSECUTIVE-MCL
CATALOGUE NO: 137 DESCRIPTION: The MCL for the monthly average of daily samples, expressed in Turbidity Units.

FIELD NO: 4 DATA ELEMENT NAME: RGF-TURB-CONSECUTIVE-SAMPLES
CATALOGUE NO: 138 DESCRIPTION: The number of consecutive days to be included in the moving daily average.

FIELD NO: 5 DATA ELEMENT NAME: RGF-TURB-EFFECTIVE-DATE
CATALOGUE NO: 139 DESCRIPTION: The date on which the regulation became effective.

FIELD NO: 6 DATA ELEMENT NAME: RGF-TURB-ALL-SOURCES
CATALOGUE NO: 140 DESCRIPTION: Flag indicating if turbidity is to be monitored only at PWS's using Surface Water.

FIELD NO: 7 DATA ELEMENT NAME: RGF-TURB-REPEAT-INCLUDED
CATALOGUE NO: 141 DESCRIPTION: A flag indicating if repeat check samples are to be included in the monthly average in place of the original sample.

FIELD NO: 8 DATA ELEMENT NAME: RGF-TURB-COM-SAMPLE-FREQ
CATALOGUE NO: 142 DESCRIPTION: The monitoring frequency expressed in days, for analysis as applied to Turbidity contaminator for community PWS's.

PROGRAM NO: REGS020

TITLE: Regulations Report - Turbidity Contaminant

FIELD NO: 9 DATA ELEMENT NAME: RGF-TURB-NCOM-SAMPLE-FREQ
CATALOGUE NO: 143 DESCRIPTION: The monitoring frequency, expressed in days, for analysis as applied to Turbidity contaminants for Non-Community PWS's.

FIELD NO: 10 DATA ELEMENT NAME: RGF-TURB-MIN-RESAMPLING-PERIOD
CATALOGUE NO: 144 DESCRIPTION: The minimum resampling period, expressed in hours, if MCL is exceeded in Turbidity samples.

REGS020 1 OF 1
9/23/76

RGF REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT REGS.303

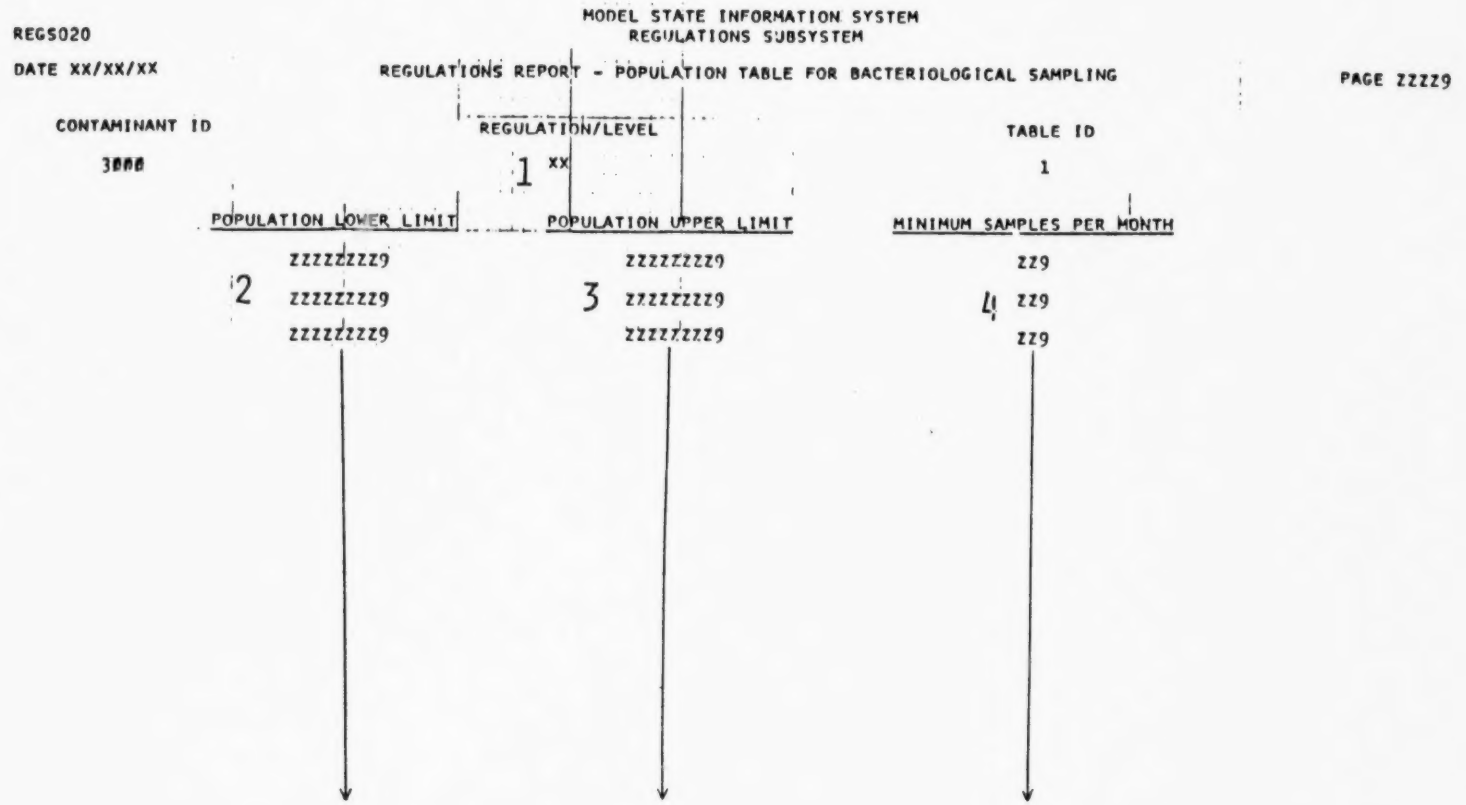


EXHIBIT NO: REGS.303 PAGE 1 OF 1

PROGRAM NO: REGS020

TITLE: Regulations Report - Population Table for Bacteriological Sampling

FIELD NO: 1
CATALOGUE NO: 128
DATA ELEMENT NAME: RGF-BPOP-REGU-LEVEL
DESCRIPTION: Indicates if the regulation is a State or Federal regulation and if it is a primary or secondary regulation.

FIELD NO: 2
CATALOGUE NO: 130
DATA ELEMENT NAME: RGF-BPOP-TBL-FROM-POPULATION
DESCRIPTION: The lower limit of a population size group used when sampling frequency is based on population size.

FIELD NO: 3
CATALOGUE NO: 131
DATA ELEMENT NAME: RGF-BPOP-TBL-TO-POPULATION
DESCRIPTION: The upper limit of a population size group, used when sampling frequency is based on population size.

FIELD NO: 4
CATALOGUE NO: 132
DATA ELEMENT NAME: RGF-BPOP-TBL-SAMPLE-FREQ
DESCRIPTION: The sampling frequency, expressed in days, for a given population range.

REGS020 1 OF 1
9/23/76

RGF REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT REGS.304

REGS020

MODEL STATE INFORMATION SYSTEM
REGULATIONS SUBSYSTEM

DATE XX/XX/XX

REGULATIONS REPORT - BACTERIOLOGICAL CONTAMINANT

PAGE ZZZZ9

CONTAMINANT ID: 3010

REGULATION/LEVEL: 1 XX

CONTAMINANT NAME: COLIFORM

EFFECTIVE DATE: 2 XX/XX/XX

ANALYSIS METHOD	UNIT	SINGLE SAMPLE MCL	MONTHLY MCL	PERCENT OF SAMPLES	MINIMUM REQUIRED SAMPLES TO USE PERCENT	MCL WHEN PERCENT IS USED
MEMBRANE FILTER	COLIFORM	3 Z9	4 Z9	5 Z9	6 Z9	7 Z9
FERMENTATION TUBE - 10ML.	POSITIVE PORTIONS	8 Z9	9 Z9 (%)	10 Z9	11 Z9	12 Z9
FERMENTATION TUBE - 100ML.	POSITIVE PORTIONS	13 Z9	14 Z9 (%)	15 Z9	16 Z9	17 Z9

REQUIREMENTS FOR WAIVER OF ONE MONTH SAMPLING:

MAXIMUM REQUIRED SAMPLES: 18 9

SAMPLING PERIOD: 19 9

CHECK SAMPLING REQUIREMENTS IF SINGLE SAMPLE MCL IS VIOLATED:

MINIMUM NUMBER OF CONSECUTIVE DAILY CHECK SAMPLES: 20 9

MINIMUM NUMBER OF CONSECUTIVE NEGATIVE PORTIONS: 21 9

MINIMUM NUMBER OF CONSECUTIVE NEGATIVE MEMBRANE FILTERS: 22 Z9

CHLORINE RESIDUAL METHOD:

NUMBER OF SAMPLES IN LIEU OF ONE REGULAR SAMPLE: 23 Z9

MAXIMUM PERCENT OF REGULAR SAMPLES: 24 Z9

MINIMUM CHLORINE LEVEL: 25 9.9

MAXIMUM TIME TO RETEST CHLORINE LEVEL: 26 Z9

NON-COMMUNITY PWS MONITORING REQUIREMENTS:

	EFFECTIVE DATE	SEASONAL SAMPLING	SAMPLING PERIOD	NUMBER OF SAMPLES PER PERIOD
	27 XX/XX/XX	28 X	29 X	30 Z9

EXHIBIT NO: REGS.304 PAGE 1 OF 6

PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 1
CATALOGUE NO: 096
DATA ELEMENT NAME: RGF-BACT-REGU-LEVEL
DESCRIPTION: Indicates whether the regulation is a State or Federal regulation and if it is primary or secondary regulation.

FIELD NO: 2
CATALOGUE NO: 098
DATA ELEMENT NAME: RGF-BACT-EFFECTIVE-DATE
DESCRIPTION: The date on which the regulation became effective.

FIELD NO: 3
CATALOGUE NO: 099
DATA ELEMENT NAME: RGF-BACT-MF-SINGLE-SAMPLE-MCL
DESCRIPTION: The maximum acceptable number of Coliform Bacteria, per 100 milliliters, in a single sample using the Membrane Filter Method.

FIELD NO: 4
CATALOGUE NO: 100
DATA ELEMENT NAME: RGF-BACT-MF-MONTHLY-MCL
DESCRIPTION: The maximum acceptable number of Coliform Bacteria per 100 milliliters, as a mean of all samples examined in a month using the Membrane Filter Method.

FIELD NO: 5
CATALOGUE NO: 101
DATA ELEMENT NAME: RGF-BACT-MF-PERCENT-SAMPLES
DESCRIPTION: The maximum acceptable percent of samples out the total number of samples per month using the Membrane Filter Method and containing a certain number of Coliform Bacteria 100 milliliters.

PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 6 DATA ELEMENT NAME: RGF-BACT-MF-MIN-REQD-SAMPLES
CATALOGUE NO: 102 DESCRIPTION: The minimum number of samples, using the Membrane Filter Method, examined per month required in order to use the Percent of Samples Method (RGP-BACT-MF-PERCENT-SAMPLES) instead of the monthly MCL method (RGP-BACT-MF-MONTHLY-MCL).

FIELD NO: 7 DATA ELEMENT NAME: RGP-BACT-MF-MCL-POR-PERCENT
CATALOGUE NO: 103 DESCRIPTION: The maximum acceptable number of Coliform Bacteria per 100 milliliters for a specific number of Membrane Filter Method samples (RGP-BACT-MF-MONTHLY-MCL) when less than a specific number of samples (RGP-BACT-MF-MIN-REGD-SAMPLES) are examined per month.

FIELD NO: 8 DATA ELEMENT NAME: RGF-BACT-PT-SINGLE-SAMPLE-MCL
CATALOGUE NO: 104 DESCRIPTION: The maximum acceptable number of positive portions in a single sample using the 10 ml. Fermentation Tube Method.

FIELD NO: 9 DATA ELEMENT NAME: RGP-BACT-PT-MONTHLY-MCL
CATALOGUE NO: 105 DESCRIPTION: The maximum acceptable positve portions as a percent of the total number of samples in any month using the 10 ml. Fermentation Tube Method.

PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 10 DATA ELEMENT NAME: RGF-BACT-FT-PERCENT-SAMPLES
CATALOGUE NO: 106 DESCRIPTION: The maximum acceptable percent of 10 ml. Fermentation Tube Method samples, out of the total number of samples per month, containing a certain number of positive portions.

FIELD NO: 11 DATA ELEMENT NAME: RGF-BACT-FT-MIN-REQD-SAMPLES
CATALOGUE NO: 107 DESCRIPTION: The minimum number of 10 ml. Fermentation Tube Method samples examined (RGF-BACT-FT-PERCENT-SAMPLES) instead of the monthly MCL (RGF-BACT-FT-MONTHLY-MCL).

FIELD NO: 12 DATA ELEMENT NAME: RGF-BACT-FT-MCL-FOR-PERCENT
CATALOGUE NO: 108 DESCRIPTION: When the percent MCL (RGF-BACT-FT-PERCENT-SAMPLES) is used, the maximum acceptable number of positive portions.

FIELD NO: 13 DATA ELEMENT NAME: RGF-BACT-FH-SINGLE-SAMPLE-MCL
CATALOGUE NO: 109 DESCRIPTION: The Single Sample MCL for 100 ml. Fermentation Tube Method; the maximum acceptable number of positive portions in a single sample.

FIELD NO: 14 DATA ELEMENT NAME: RGF-BACT-FH-MONTHLY-MCL
CATALOGUE NO: 110 DESCRIPTION: The positive portions as a percent of the total number of samples in any month, using the 100 ml. Fermentation Tube Method.

PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 15
CATALOGUE NO: 111
DATA ELEMENT NAME: RGF-BACT-FH-PERCENT-SAMPLES
DESCRIPTION: The percent of 100 ml. Fermentation Tube Method samples, out of the total number of samples per month, containing a certain number of positive portions.

FIELD NO: 16
CATALOGUE NO: 112
DATA ELEMENT NAME: RGF-BACT-FH-MIN-REQD-SAMPLES
DESCRIPTION: The minimum required number of 100 ml. Fermentation Tube Method samples examined per month in order to use the percent of samples (RGF-BACT-FH-PERCENT-SAMPLES) instead of the monthly MCL (RGF-BACT-FH-MONTHLY-MCL).

FIELD NO: 17
CATALOGUE NO: 113
DATA ELEMENT NAME: RGF-BACT-FH-MCL-FOR-PERCENT
DESCRIPTION: When the percent MCL (RGF-BACT-FH-PERCENT-SAMPLES) is used, the maximum acceptable number of positive portions.

FIELD NO: 18
CATALOGUE NO: 114
DATA ELEMENT NAME: RGF-BACT-REQMNTS-MAX-SAMPLES
DESCRIPTION: The maximum acceptable number of required samples which a PWS may waive for monthly sampling.

FIELD NO: 19
CATALOGUE NO: 115
DATA ELEMENT NAME: RGF-BACT-REQMNTS-SAMPLE-PERIOD
DESCRIPTION: The sampling period, expressed in months, used in lieu of the one month sampling period when the PWS qualifies under RGF-BACT-REQMNTS-MAX-SAMPLES.

FIELD NO: 20
CATALOGUE NO: 116
DATA ELEMENT NAME: RGF-BACT-CHK-MIN-DAILY-SAMPLES
DESCRIPTION: The minimum number of consecutive daily check samples required for Bacteriological sampling when single sample MCL is violated.

PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 21
CATALOGUE NO: 117
DATA ELEMENT NAME: RGF-BACT-CHK-MIN-NEG-PORTIONS
DESCRIPTION: The minimum number of consecutive negative check samples required to halt check sampling when single sample MCL is violated; used for both 10 and 100 ml. Fermatation Tube Method.

FIELD NO: 22
CATALOGUE NO: 118
DATA ELEMENT NAME: RGF-BACT-CHK-MIN-COLIFORM-BACT
DESCRIPTION: The number of consecutive Membrane Filter Method check samples showing less than 1 Coliform Bacteria per 100 milliliters to halt check sampling when a single sample MCL is violated.

FIELD NO: 23
CATALOGUE NO: 119
DATA ELEMENT NAME: RGF-BACT-CHL-SAMPLES-IN-LIEU
DESCRIPTION: The number of samples to be taken for Chlorine Residual in lieu of one sample required for Bacteriolcgical Analysis, when the Chlorine Residual Method is used.

FIELD NO: 24
CATALOGUE NO: 120
DATA ELEMENT NAME: RGF-BACT-CHL-MAX-PERCENT
DESCRIPTION: The maximum percent of samples for Bacteriological Analysis that may be replaced by the equivalent number of samples for analysis by the Chlorine Residual Method, at the ratio indicated in RGF-BACT-CHL-SAMPLES-IN-LIEU.

FIELD NO: 25
CATALOGUE NO: 121
DATA ELEMENT NAME: RGF-BACT-CHL-MIN-CHLORINE-LEVEL
DESCRIPTION: The minimum Chlorine level, expressed as milligrams per liter, to be maintained throughout the PWS; used in the Chlorine Residual Analysis Method.

PROGRAM NO: REGS020

TITLE: Regulations Report - Bacteriological Contaminant

FIELD NO: 26
CATALOGUE NO: 122
DATA ELEMENT NAME: RGF-BACT-CHL-MAX-TIME-RETEST
DESCRIPTION: The maximum time, expressed in minutes, to retest the Chlorine level, using the Chlorine Residual Analysis Method, for Coliform Bacteria.

FIELD NO: 27
CATALOGUE NO: 123
DATA ELEMENT NAME: RGF-BACT-NCOM-EFFECTIVE-DATE
DESCRIPTION: Date on which the regulation became effective.

FIELD NO: 28
CATALOGUE NO: 124
DATA ELEMENT NAME: RGF-BACT-NCOM-SEASONAL-CODE
DESCRIPTION: A flag indicating whether or not seasonal sampling applies to a contaminant. If so, MSIS will schedule sampling during season time.

FIELD NO: 29
CATALOGUE NO: 125
DATA ELEMENT NAME: RGF-BACT-NCOM-SAMPLING-PERIOD
DESCRIPTION: A flag to define the sampling period for Bacteriological Contaminant monitoring. Applies to non-community PWS's.

FIELD NO: 30
CATALOGUE NO: 126
DATA ELEMENT NAME: RGF-BACT-NCOM-SAMPLE-FREQ
DESCRIPTION: The sampling frequency for analysis as applied to a particular contaminant, expressed in days. Used in Bacteriolgical sampling for the non-community PWS.

REGS020 1 of 1
9/23/76

RGF Report Modula..
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT REGS.305

MODEL STATE INFORMATION SYSTEM
REGULATIONS SUBSYSTEM

REGS020
DATE XX/XX/XX

REGULATIONS REPORT - FLUORIDE MCL TABLE

PAGE ZZZZ9

CONTAMINANT ID	REGULATION/LEVEL	TABLE ID
1025	1 XX	2

TEMPERATURE RANGES AND CORRESPONDING MCL

FAHRENHEIT		CELSIUS		MCL
LOWER	UPPER	LOWER	UPPER	
2 Z9.9	3 Z9.9	4 Z9.9	5 Z9.9	6 ZZZZ9.9
Z9.9	Z9.9	Z9.9	Z9.9	ZZZZ9.9
Z9.9	Z9.9	Z9.9	Z9.9	ZZZZ9.9

REASONABLE BOUNDS

7 Z9.9	8 Z9.9	9 Z9.9	10 Z9.9

EXHIBIT NO: REGS.305 PAGE 1 OF 2

PROGRAM NO: REGS020

TITLE: Regulations Report - Fluoride MCL Table

FIELD NO: 1
CATALOGUE NO: 084
DATA ELEMENT NAME: RGF-FLOR-REGU-LEVEL
DESCRIPTION: Indicates if the regulation is a State or Federal regulation and if it is a primary or secondary regulation.

FIELD NO: 2
CATALOGUE NO: 086
DATA ELEMENT NAME: RGF-FLOR-TEMP-FAHR-LOW
DESCRIPTION: The lower range of temperature expressed in degrees Fahrenheit, for Fluoride sampling.

FIELD NO: 3
CATALOGUE NO: 087
DATA ELEMENT NAME: RGF-FLOR-TEMP-FAHR-HIGH
DESCRIPTION: The upper range of temperature, expressed in degrees Fahrenheit, for Fluoride sampling.

FIELD NO: 4
CATALOGUE NO: 088
DATA ELEMENT NAME: RGF-FLOR-TEMP-CELS-LOW
DESCRIPTION: The lower range of temperature, expressed in degress Celsius, for Fluoride sampling.

FIELD NO: 5
CATALOGUE NO: 089
DATA ELEMENT NAME: RGF-FLOR-TEMP-CELS-HIGH
DESCRIPTION: The upper range of temperature, expressed in degress Celsius, for Fluoride sampling.

FIELD NO: 6
CATALOGUE NO: 090
DATA ELEMENT NAME: RGF-FLOR-TEMP-RANGE-MCL
DESCRIPTION: The MCL expressed in milligrams per liter for a corresponding temperature range (RGF-FLOR-TEMP-RANGE-FAHRENHEIT or RGF-FLOR-TEMP-RANGE-CELSIUS) for Fluoride sampling.

PROGRAM NO: REGS020

TITLE: Regulatons Report - Fluoride MCL Table

FIELD NO: 7
CATALOGUE NO: 091
DATA ELEMENT NAME: RGF-FLOR-REAS-FAHR-LOW
DESCRIPTION: The lower reasonable bound of temperature ranges, as expressed in degrees Fahrenheit, for Fluoride sampling.

FIELD NO: 8
CATALOGUE NO: 092
DATA ELEMENT NAME: RGF-FLOR-REAS-FAHR-HIGH
DESCRIPTION: The upper reasonable bound of temperature ranges, as expressed in degrees Fahrenheit, for Fluoride sampling.

FIELD NO: 9
CATALOGUE NO: 093
DATA ELEMENT NAME: RGF-FLOR-REAS-CELS-LOW
DESCRIPTION: The lower reasonable bound for temperature ranges, as expressed in degrees Celsius, for Fluoride sampling.

FIELD NO: 10
CATALOGUE NO: 094
DATA ELEMENT NAME: RGF-FLOR-REAS-CELS-HIGH
DESCRIPTION: The upper reasonable bound of temperature ranges, as expressed in degrees Celsius, for Fluoride sampling.

REGS020 1 of 1
9/23/76

RGF Report Module

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT REGS.306

REGS020

MODEL STATE INFORMATION SYSTEM
REGULATIONS SUBSYSTEM

DATE XX/XX/XX

REGULATIONS REPORT - MAJOR BETA EMITTERS TABLE

PAGE ZZZZ9

REGULATION/LEVEL	TABLE ID	EFFECTIVE DATE
XX	3	XX/XX/XX
1		2

CONTAMINANT ID	CONTAMINANT NAME 3	ANNUAL CONCENTRATION EQUIVALENT TO MCL DOSE 4	DETECTION LIMIT 5	NUCLEAR POWER PLANT CODE(S) 6
4199	XXXXXXXXXXXXXX	ZZZZ9.9	ZZZ9	Z Z Z Z Z
4199	XXXXXXXXXXXXXX	ZZZZ9.9	ZZZ9	Z Z Z Z Z
4199	XXXXXXXXXXXXXX	ZZZZ9.9	ZZZ9	Z Z Z Z Z

EXHIBIT NO: REGS.306 PAGE 1 OF 1

PROGRAM NO: REGS020

TITLE: Regulations Report - Major Beta Emitters Table

FIELD NO: 1
CATALOGUE NO: 076
DATA ELEMENT NAME: RGF-EMIT-REGU-LEVEL
DESCRIPTION: Indicates if the regulation is a State or Federal Regulation and if it is a primary or secondary regulation.

FIELD NO: 2
CATALOGUE NO: 078
DATA ELEMENT NAME: RGF-EMIT-EFFECTIVE-DATE
DESCRIPTION: The date on which the regulation became effective.

FIELD NO: 3
CATALOGUE NO: 079
DATA ELEMENT NAME: RGF-EMIT-CONTAM-NAME
DESCRIPTION: The scientific name of the contaminant.

FIELD NO: 4
CATALOGUE NO: 080
DATA ELEMENT NAME: RGF-EMIT-ANNUAL-CONCENT-EQUIV
DESCRIPTION: The average annual concentration of Beta Particle Radioactivity equivalent to a total body or organ MCL dose of 4 millirems per year, expressed in picoCuries per liter.

FIELD NO: 5
CATALOGUE NO: 081
DATA ELEMENT NAME: RGF-EMIT-DETECTION-LIMIT
DESCRIPTION: The detection limit for Beta Radioactivity expressed in picoCuries per liter.

FIELD NO: 6
CATALOGUE NO: 082
DATA ELEMENT NAME: RGF-EMIT-NUCL-POWER-PLANT-CODE
DESCRIPTION: A one-digit code identifying the type of nuclear power plant.

RGF REPORT MODULE

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT REGS.307

REGS020

DATE XX/XX/XX

MODEL STATE INFORMATION SYSTEM
REGULATIONS SUBSYSTEM

REGULATIONS REPORT - GROSS ALPHA CONTAMINANT

PAGE ZZZZ9

CONTAMINANT ID	REGULATION/LEVEL	CONTAMINANT NAME	EFFECTIVE DATE
4000	1 XX	GROSS ALPHA	2 XX/XX/XX

MCL AND SCREENING LEVELS:

GROSS ALPHA MCL	COMBINED RADIUM MCL
3 Z9.9	4 Z9.9

MAXIMUM GROSS ALPHA SCREENING LEVEL	
WITHOUT RADIUM-228	WITH RADIUM-228
5 Z9.9	6 Z9.9

MAXIMUM RADIUM-226 SCREENING LEVEL	
FOR RADIUM-228	FOR ANNUAL MONITORING
7 Z9.9	8 Z9.9

SAMPLING AND ANALYSIS REQUIREMENTS:

NUMBER OF CONSECUTIVE QUARTERLY SAMPLES	NORMAL MONITORING FREQUENCY	INITIAL MONITORING PERIOD FOR NEW WATER SOURCE	FRACTION OF MCL AT WHICH TO SUBSTITUTE SINGLE ANNUAL SAMPLE
9 9	10 9	11 Z9	12 .99

MONITORING FREQUENCY IF PWS IS IN VIOLATION	ANNUAL COMPOSITE OR MULTIPLE SAMPLE AVERAGE REQUIRED	THESE REGULATIONS APPLY TO COMMUNITY, NON-COMMUNITY OR BOTH
13 Z9	14 X	15 X

EXHIBIT NO: REGS.307 PAGE 1 OF 3

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Alpha Contaminant

FIELD NO: 1
CATALOGUE NO: 002
DATA ELEMENT NAME: RGF-ALPHA-REGU-LEVEL
DESCRIPTION: Indicates if the regulation is a State or Federal regulation and if it is a primary or secondary regulation.

FIELD NO: 2
CATALOGUE NO: 004
DATA ELEMENT NAME: RGF-ALPHA-EFFECTIVE-DATE
DESCRIPTION: The date on which the regulation became effective.

FIELD NO: 3
CATALOGUE NO: 005
DATA ELEMENT NAME: RGF-ALFA-MCL-GROSS-ALPHA
DESCRIPTION: MCL for Gross Alpha Analysis Method for Radiological sampling. Quantity expressed in picoCuries per liter.

FIELD NO: 4
CATALOGUE NO: 006
DATA ELEMENT NAME: RGF-ALFA-MCL-COMBINED-RADIUM
DESCRIPTION: Combined MCL for Radium 226 and Radium 228 for analysis of Radiological samples. Quantity expressed in picoCuries per liter.

FIELD NO: 5
CATALOGUE NO: 007
DATA ELEMENT NAME: RGF-ALFA-MAX-GA-WITHOUT-R228
DESCRIPTION: Maximum Gross Alpha Particle Radioactivity screening level, without Radium 228. Quantity expressed in picoCuries per liter.

FIELD NO: 6
CATALOGUE NO: 008
DATA ELEMENT NAME: RGF-ALFA-MAX-GA-WITH-R228
DESCRIPTION: Maximum Gross Alpha Particle Radioactivity screening level, with Radium 228. Quantity expressed in picoCuries per liter.

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Alpha Contaminant

FIELD NO: 7 DATA ELEMENT NAME: RGF-ALFA-MAX-R226-FOR-R228
CATALOGUE NO: 009 DESCRIPTION: Maximum Radium 226, radioactivity screening level for Radium 228. Expressed in picoCuries per liter.

FIELD NO: 8 DATA ELEMENT NAME: RGF-ALFA-MAX-R226-ANNUAL-MONIT
CATALOGUE NO: 010 DESCRIPTION: Maximum Radium 226 radioactivity screening level for Annual Monitoring. Expressed in picoCuries per liter.

FIELD NO: 9 DATA ELEMENT NAME: RGF-ALFA-NUM-SAMPLES-PER-YEAR
CATALOGUE NO: 011 DESCRIPTION: The number of samples per year for Gross Alpha Particle Radioactivity sampling.*

FIELD NO: 10 DATA ELEMENT NAME: RGF-ALFA-MIN-NORM-MONITOR-FREQ
CATALOGUE NO: 012 DESCRIPTION: Minimum normal monitoring frequency for Gross Alpha Radioactivity Analysis, expressed in years.*

FIELD NO: 11 DATA ELEMENT NAME: RGF-ALFA-INITL-MONITOR-PERIOD
CATALOGUE NO: 013 DESCRIPTION: Initial monitoring period for new water sources, for Gross Alpha Particle Radioactivity, expressed in months.

FIELD NO: 12 DATA ELEMENT NAME: RGF-ALFA-FRACTION-MCL-SUBSTITU
CATALOGUE NO: 014 DESCRIPTION: The fraction of MCL, expressed in decimal form, below which analysis of a single annual sample may be substituted for the quarterly sampling.*

* Applies to community water systems only.

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Alpha Contaminant

FIELD NO: 13
CATALOGUE NO: 015
DATA ELEMENT NAME: RGF-ALFA-MIN-VIOL-MONITOR-FREQ
DESCRIPTION: Minimum monitoring frequency expressed in months, if the PWS is in violation of Gross Alpha Radioactivity requirements.*

FIELD NO: 14
CATALOGUE NO: 016
DATA ELEMENT NAME: RGF-ALFA-ANNUAL-COMP-4-SAMPLE
DESCRIPTION: Indicates whether an annual composite sample, a four quarterly sample average, or both is acceptable for monitoring Gross Alpha Radioactivity. Applies to community water system only.

FIELD NO: 15
CATALOGUE NO: 017
DATA ELEMENT NAME: RGF-ALFA-COM-NONCOMM-BOTH
DESCRIPTION: Indicates whether the regulation applies to community water systems, non-community water systems, or both.

* Applies to community water systems only.

REGS020 1 OF 1
9/23/76

RGF REPORT MODULE

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT REGS.308

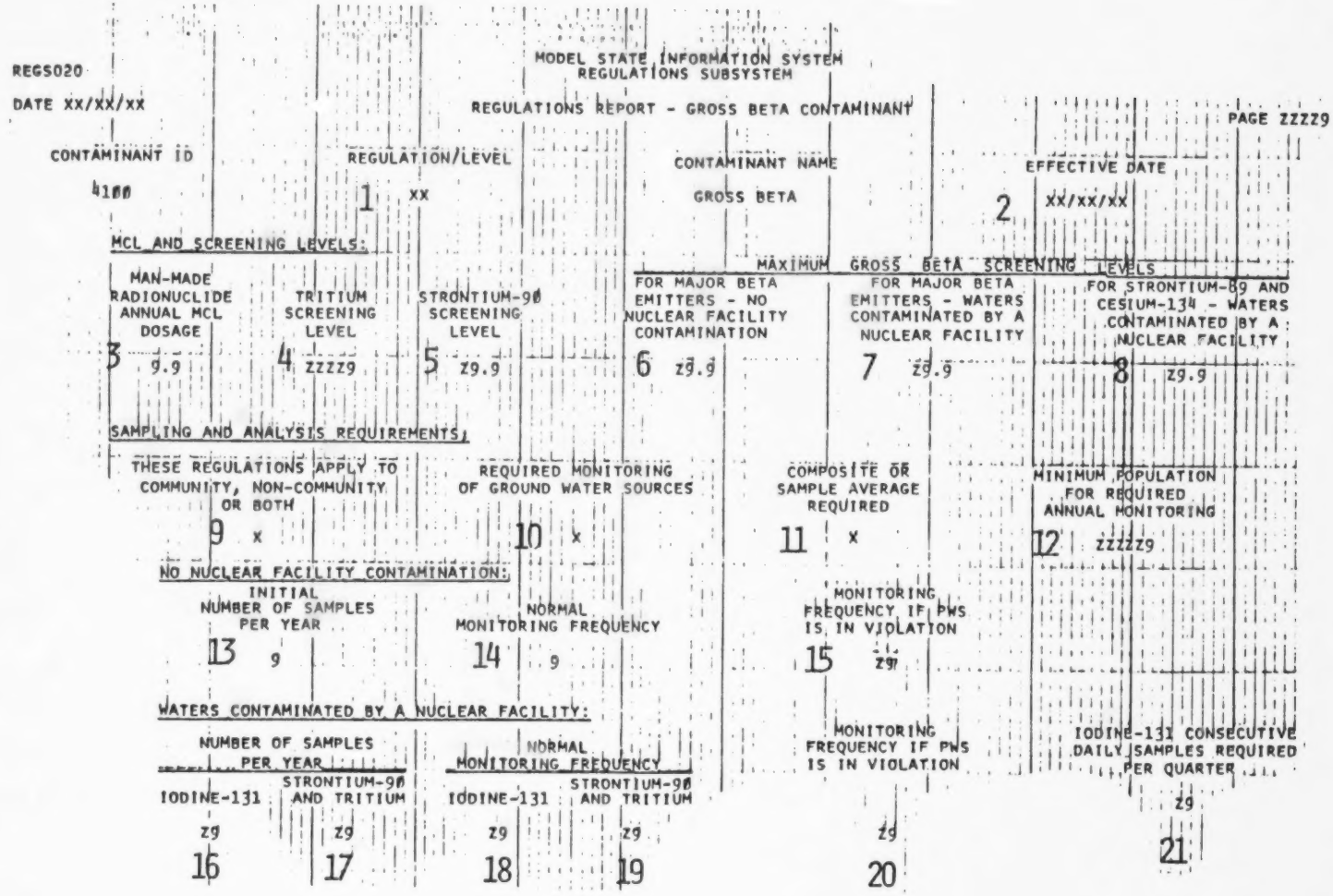


EXHIBIT NO: REGS.308 PAGE 1 OF 4

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Beta Contaminant

FIELD NO: 1
CATALOGUE NO: 019
DATA ELEMENT NAME: RGF-BETA-REGU-LEVEL
DESCRIPTION: Indicates if the regulation is a State or Federal regulation and if it is a primary or secondary regulation.

FIELD NO: 2
CATALOGUE NO: 021
DATA ELEMENT NAME: RGF-BETA-EFFECTIVE-DATE
DESCRIPTION: The date on which the regulation became effective.

FIELD NO: 3
CATALOGUE NO: 022
DATA ELEMENT NAME: RGF-BETA-MCL-ANNUAL-DOSAGE
DESCRIPTION: The minimum annual average dose equivalent of Gross Beta Radioactivity expressed in millirems per year.*

FIELD NO: 4
CATALOGUE NO: 023
DATA ELEMENT NAME: RGF-BETA-TRITIUM-SCREENING
DESCRIPTION: Maximum average annual concentration of Tritium Beta Particle activity for screening levels, expressed in picoCuries per liter.*

FIELD NO: 5
CATALOGUE NO: 024
DATA ELEMENT NAME: RGF-BETA-STRONTIUM90-SCREENING
DESCRIPTION: Maximum average annual concentration of Beta Particle activity for screening levels, expressed in picoCuries per liter.*

FIELD NO: 6
CATALOGUE NO: 025
DATA ELEMENT NAME: RGF-BETA-MAJ-BETA-EM-NO-NUCL
DESCRIPTION: Maximum Gross Beta Particle Radioactivity screening level for major Beta Emitters with no contamination by effluents from nuclear facilities. Expressed in picoCuries per liter.*

* Applies to community water systems only.

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Beta Contaminant

FIELD NO: 7
CATALOGUE NO: 026
DATA ELEMENT NAME: RGF-BETA-MAJ-BETA-EM-CON-NUCL
DESCRIPTION: Maximum Gross Beta Particle Radioactivity screening level for major Beta Emitters for waters contaminated by effluents from nuclear facilities. Expressed in picoCuries per liter.*

FIELD NO: 8
CATALOGUE NO: 027
DATA ELEMENT NAME:RGF-BETA-STRON89-CES134-CON-NU
DESCRIPTION: Maximum Gross Beta Particle Radioactivity screening level for Strontium - 89 and Cesium 134 for waters contaminated by effluents from nuclear facilities. Expressed in picoCuries per liter.*

FIELD NO: 9
CATALOGUE NO: 028
DATA ELEMENT NAME:RGF-BETA-COM-NONCOMM-BOTH
DESCRIPTION: Indicates whether the regulations apply to community water systems, non-community water systems, or both.

FIELD NO: 10
CATALOGUE NO: 029
DATA ELEMENT NAME: RGF-BETA-MONIT-GRD-INTR-REQD
DESCRIPTION: Indicates if monitoring of ground water sources is required for Gross Beta Radioactivity Analysis.*

FIELD NO: 11
CATALOGUE NO: 030
DATA ELEMENT NAME: RGF-BETA-AVERAGE-COMPOS-SAMPLE
DESCRIPTION: Indicates whether a sample average, a composite sample, or both is acceptable for monitoring Gross Beta Radioactivity.*

* Applied to community water systems only.

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Beta Contaminant

FIELD NO: 12
CATALOGUE NO: 031
DATA ELEMENT NAME: RGF-BETA-MIN-POPULATION-ANNUAL
DESCRIPTION: The minimum population served by a community water system for requiring annual monitoring for Beta Particle Radioactivity.

FIELD NO: 13
CATALOGUE NO: 032
DATA ELEMENT NAME: RGF-BETA-N-NUM-SAMPLES-YEAR
DESCRIPTION: The number of samples per year for Gross Beta Particle Radioactivity sampling, for water not contaminated by effluents from nuclear facilities.*

FIELD NO: 14
CATALOGUE NO: 033
DATA ELEMENT NAME: RGF-BETA-N-NORM-MONIT-FREQ
DESCRIPTION: Normal monitoring frequency for Gross Beta Radioactivity Analysis, expressed in years, for water not contaminated by effluents from a nuclear facility.*

FIELD NO: 15
CATALOGUE NO: 034
DATA ELEMENT NAME: RGF-BETA-N-VIOL-MONIT-FREQ
DESCRIPTION: Monitoring frequency for Gross Beta Radioactivity Analysis, expressed in months, when the PWS is in violation.

FIELD NO: 16
CATALOGUE NO: 035
DATA ELEMENT NAME: RGF-BETA-C-NUM-IODINE-SAMPLES
DESCRIPTION: The number of samples per year for Gross Beta Radioactivity sampling, for water contaminated by effluents from nuclear facilities, for Iodine - 131 sampling.*

* Applies to community water systems only.

PROGRAM NO: REGS020

TITLE: Regulations Report - Gross Beta Contaminant

FIELD NO: 17
CATALOGUE NO: 036
DATA ELEMENT NAME: RGF-BETA-C-NUM-STRONT-SAMPLES
DESCRIPTION: The number of samples per year for Gross Beta Radioactivity sampling for waters contaminated by effluents from nuclear facilities, for Strontium - 90 and Tritium sampling.*

FIELD NO: 18
CATALOGUE NO: 037
DATA ELEMENT NAME: RGF-BETA-C-IODINE-MONIT-FREQ
DESCRIPTION: Normal monitoring frequency for Gross Beta Radioactivity Analysis, expressed in months for waters contaminated by effluents from nuclear facilities for Iodine - 131 sampling.*

FIELD NO: 19
CATALOGUE NO: 038
DATA ELEMENT NAME: RGF-BETA-C-STRONT-MONIT-FREQ
DESCRIPTION: Normal monitoring frequency for Gross Beta Radioactivity Analysis expressed in months, for Strontium - 90 and Tritium sampling.*

FIELD NO: 20
CATALOGUE NO: 039
DATA ELEMENT NAME: RGF-BETA-C-VIOL-MONIT-FREQ
DESCRIPTION: Monitoring frequency for Gross Beta Radioactivity Analysis, expressed in months, when the PWS effluents from nuclear facilities.*

FIELD NO: 21
CATALOGUE NO: 040
DATA ELEMENT NAME: RGF-BETA-C-IODINE131-CONS-SPL
DESCRIPTION: The number of consecutive daily samples of Iodine - 131 required each quarter for Gross Beta Analysis for water contaminated by effluents from nuclear facilities.*

* Applies to community water systems only.

4. Error Messages and Remedial Actions

Error messages other than those from the Error Message Table (EMT) and the Standard Error Messages for Processing Options are listed in program number sequence, along with their remedial actions, if any.

a. REGS010 - Regulations File Creation

MESSAGE: ERROR - NO PROCESSING OPTION CARDS WERE PROVIDED
REMEDIAL ACTION: obtain processing options cards from data entry and rerun job.

MESSAGE: ERROR - RGI-PROC-ID NOT EQUAL TO PROC
REMEDIAL ACTION: this means that the options card did not begin with 'PROC'. Check for keypunch error and rerun job.

MESSAGE: ERROR - PROC CARD CONTAINS AN INVALID DATE
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - RGI-PROC-OUTPUT NOT EQUAL TO Y OR N
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - RGI-PROC-FIELD-SELECT NOT EQUAL TO N
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - CVT FILE IS MISSING
REMEDIAL ACTION: mount CVT file and rerun job.

MESSAGE: ERROR - CVT-RG-FILE IS MISSING
REMEDIAL ACTION: mount REGS CVT file and rerun job.

b. REGS020 - Regulations File Report

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records.

MESSAGE: ERROR - POPULATION TABLE CONTAINS OVER 200 ELEMENTS
REMEDIAL ACTION: If all entries are desired, the program must be changed to accept them all.

MESSAGE: ERROR - FLUORIDE TABLE CONTAINS OVER 40 ELEMENTS
REMEDIAL ACTION: Notify programming that the table has exceeded program capacity and the program must be changed to accommodate a larger table.

MESSAGE: ERROR - EMITTERS TABLE CONTAINS OVER 50 ELEMENTS
REMEDIAL ACTION: Notify programming that the table has exceeded program capacity and the program must be changed to accommodate a larger table.

C. Water Quality Compliance Subsystem (WAQC)

1. General Description

The Water Quality Compliance Subsystem (WAQC) is a mandatory subsystem which is designed to monitor the quality of the drinking water supplied to the public. Two levels of PWS compliance with the Safe Drinking Water Act may be defined. The first, or primary level of compliance is achieved by using those treatment, storage, and distribution methods needed to supply safe drinking water. A secondary compliance level is achieved by monitoring the quality of the drinking water being supplied to the public. This is a more indirect level and, therefore, less desirable method of detecting problems. Primary compliance actions are designed to prevent problems before they arise; secondary compliance activities are designed to identify problems and correct them after they have arisen.

Primary compliance can be controlled by a state in two ways; by a permit program for new PWS or by periodic sanitary surveys. A permit program is essentially a sanitary engineering task. The PWSI Subsystem will be used to maintain most data elements related to facilities. The Sanitary Survey Subsystem is used to schedule inspections of PWS facilities and thus provides a second way of controlling basic compliance.

Secondary compliance is accomplished by monitoring the sampling and analysis of finished water. The WAQC Subsystem is designed to provide the means for this monitoring process.

There are eight requirements in the Primary Drinking Water Regulations that a PWS could violate:

(1) Maximum Contaminant Level (MCL).

(2) Sampling requirements: number, frequency, and methodology;

(3) Check sampling;

(4) State notification;

(5) Public notification;

(6) Treatment techniques;

(7) Violation of compliance schedule under a variance or exemption;

(8) Record Keeping.

The main purpose of the WAQC Subsystem is to identify violations of the first three of these regulatory requirements. In this way, the Water Quality Compliance Subsystem compliments the PWSI Subsystem and the Sanitary Survey (SRVY) Subsystem by providing data management for tracing non-compliance with the Safe Drinking Water Act.

Secondary compliance can be further classified as compliance with the Federal Interim Primary Drinking Water Regulations or compliance with the state's own standards. There is a need to identify both, and also to indicate if non-compliance is temporarily overruled by variances or exemptions. The Water Quality Compliance Subsystem responds to this need by using the Regulations File (RGF) and the Public Water File (PWF).

2. How to Enter Data

The following instructions are in narrative form to be used as an educational tool for a user who is new to MSIS. A quick reference guide can be found in the Data Entry Instruction Manual for each of the input documents relative to this subsystem. They are arranged numerically by exhibit number.

EXHIBIT NO: WAQC.100
DESCRIPTION: This PROC option contains a date which is used in the report heading created by program module WAQC210.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The first Standard Error Processing Option is to determine whether or not a file of error records is to be created. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices. The instructions are self-explanatory.

EXHIBIT NO: WAQC.101
DESCRIPTION: This document is the Laboratory Table Input Form used to create the Laboratory Table File (LBT) in WAQC210.

-The LAB ID is the five digit Laboratory Identification Code.

-The OWNER TYPE is a one digit code which can be found in Appendix B of the Data Element Dictionary.

-LABORATORY NAME is a thirty character field in which the name of the laboratory must be entered starting in the left most position.

-The EXPIRATION DATE is the authorized expiration date of the laboratory for performing water sample analysis. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

EXHIBIT NO: WAQC.102
DESCRIPTION: This document is the Laboratory Table Input Form used to create the analysis method information on the laboratory table in WAQC210.

-LAB ID is the five digit Laboratory Identification Code.

-CONTAMINANT GROUP is a one digit field. Enter a "0" for Turbidity, a "1" for Inorganic Chemicals, a "2" for Organic Chemicals, a "3" for Microbiological, a "4" for Radionuclide, or a "9" for other.

-AUTHORIZED ANALYSIS METHOD is the three digit analysis method code for the contaminant group entered above that is authorized for the laboratory. The analysis method must be present on the Code Value Table (CVT) and the first digit must be the same as the number entered in column 6.

-CARD CODE is preprinted on the form.

EXHIBIT NO: WAQC.103
DESCRIPTION: This PROC option contains a date which is used on the reports created by WAQC010 and WAQC020.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The first Standard Error Processing Option is to determine whether or not a file of error records is to be created. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices.

-The second option is used to determine whether the entire transaction should be printed on the error report or only those fields which are in error. The instructions are self-explanatory.

EXHIBIT NO: WAQC.104
DESCRIPTION: Refer to section IV, User Defined Report Sequencing, in this manual for complete instructions. This form will be used with program module WAQC011, WAQC040, WAQC041, WAQC050, WAQC051, WAQC060, WAQC061, WAQC070, WAQC080, WAQC090, WAQC110, WAQC111, WAQC112, and WAQC113.

EXHIBIT NO: WAQC.105
DESCRIPTION: This document is the Sample Deletion transactions form used to delete records from the Periodic Sample File (PSF) in program module WAQC010.

-The PWS ID is a seven-digit Identification Code of the Public Water System to which the sample applies. The Identification Code must be on both the Public Water Table (PWT) and the Periodic Sample File (PSF) in order for the record to be deleted.

-CONTAMINANT ID is a four-digit Contaminant Identification Code of the sample record to be deleted. The code must be on both the Code Value Table (CVT) and the Periodic Sample File (PSF) in order for the record to be deleted.

-The name of the contaminant bearing the Contaminant ID Code may be entered on the form under CONTAMINANT NAME.

-The ANALYSIS METHOD is a three-digit code of the analysis method of the sample record to be deleted. The first digit must be the same as the first digit of Contaminant ID and the analysis method must be on the Periodic Sample File (PSF) in order for the record to be deleted.

-The SAMPLE KEY is the ten-digit sample key of the sample record to be deleted.

EXHIBIT NO: WAQC.106
DESCRIPTION: This document is The Chemical or Radiological Analysis Input Form used to enter sample data for Chemical and Radiological contaminants into the Periodic Sample File (PSF) in program module WAQC010.

-The PWS ID is a seven-digit identification code of the Public Water System to which the sample applies. The identification code must be on the Public Water Table (PWT).

-The name and mailing address of the Public Water System may be entered on the form under PUBLIC WATER SYSTEM NAME AND ADDRESS.

-CONTAMINANT ID is the Contaminant Identification code of the particular chemical or radiological contaminant for which the sample was analyzed. The code must be on the Code Value Table (CVT) and the first digit must be a "1" for inorganic chemical contaminants, a "2" for organic chemical contaminants, and a "4" for radionuclide contaminants.

-The name of the contaminant bearing the Contaminant ID Code may be entered under CONTAMINANT NAME.

-ANALYSIS METHOD is a three digit code of the analysis method used in analyzing the sample for a particular contaminant. The analysis method must be present on the Laboratory Table (LBT) for the Laboratory that is perfcrming the analysis. The first digit must match the first digit cf the Contaminant ID.

-The ANALYSIS RESULT is the result of the analysis of the sample in milligrams/liter for chemical samples or picocuries/liter for radiological samples. Only the significant digits are entered. If the result is less than the minimum detectable limit, the minimum detectable limit is entered unless this requirement is waived.

-ANALYSIS DECIMALS is the number of decimal places in the Analysis Result.

-ANALYSIS DATE is the date the analysis was performed. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-LOCATION CODE is a unique code used to tie a check sample back to a regular sample for which it was taken. It is necessary only for regular samples for which check samples will be taken and only for check samples.

-The name of the location at which the sample was taken may be entered under LOCATION NAME.

-SAMPLE DATE is the date on which the sample was taken. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-SAMPLE TYPE is the type of code of the sample taken. Enter a "C", "D", "P", "R", or "S" according to the sample type key on the input form.

-SAMPLE TIME is the time the sample was taken based on a 24-hour clock.

-LAB ID is the identification code of the Laboratory analyzing the sample. It must be a Laboratory present on the Laboratory Table (LBT) whose authorized expiration date has not passed.

-The name of the Laboratory bearing the Identification Code may be entered under LAB NAME.

-The name or initials of the individual performing the sample analysis for the particular contaminant specified under CONTAMINANT ID or collecting the sample can be entered under SAMPLE ANALYZED BY or SAMPLE COLLECTED BY respectively.

EXHIBIT NO: WAQC.107
DESCRIPTION: This document is the Bacteriolcgical or Turbidity Analysis Input Form used to enter sample data for Bacteriological and Turbidity contaminants into the Periodic Sample File (PSF) in WAQC010.

-The PWS ID is a seven-digit identification code of the Public Water System to which the sample applies. The identification code must be on the Public Water Table (PWT).

-The name and mailing address of the Public Water System may be entered under PUBLIC WATER SYSTEM NAME AND ADDRESS.

-CONTAMINANT ID is the Contaminant Identification Code of the bacteriological or turbidity contaminant for which the sample was analyzed. The code must be on the Code Value Table (CVT) and the first digit must be a "0" for turbidity contaminants and "3" for bacteriological contaminants.

-The name of contaminant bearing the Contaminant ID Code may be entered on the CONTAMINANT NAME.

-ANALYSIS METHOD is a three digit code of the analysis method used in analyzing the sample. The analysis method must be present on the Labcratory Table (LBT) for the Laboratory that is performing the analysis. The first digit must match the first digit cf Contaminant ID.

-The ANALYSIS RESULT is the result of the analysis of the sample expressed in the unit appropraite for the analysis method such as number of coliform for membrane filter, number of positive tubes for fermentation tube, milligrams/liter for chlorine residual, and number of turbidity units for turbidity samples.

-ANALYSIS DECIMALS is the number of decimal places in the Analysis Result for turbidity and chlorine residual samples. Enter a "0" for bacteriological samples using membrane filter or fermentaticn tube method.

-ANALYSIS DATE is the date the analysis was performed or the day the analysis result was obtained if the analysis spans more than one day. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-LOCATION CODE is a unique code used to tie a check sample back to a regular sample for which it was taken. It is necessary only for regular samples for which check samples will be taken and only for check samples.

-The name of the location at which the sample was taken may be entered under LOCATION NAME.

-SAMPLE DATE is the date on which the sample was taken. Code the two-digit month under "M", the two-digit day under "D", and the last two digits of the year under the "Y".

-SAMPLE TYPE is the type of code of the sample taken. Enter a "C", "D", "P", "R", or "S" according to the sample type key on the input form.

-SAMPLE TIME is the time the sample was taken based on a 24-hour clock.

-LAB ID is the identification code of the Laboratory analyzing the sample. It must be entered for membrane filter and fermentation tube sample analyses. It must be a Laboratory present on the Laboratory Table (LBT) whose authorized expiration date has not passed for membrane filter and fermentation tube sample analyses. It is not necessary for turbidity or chlorine residual samples.

-The name of the Laboratory bearing the Identification Code may entered under LAB NAME.

-The initials of the individual collecting the sample or performing the sample analysis may be entered under SAMPLE COLLECTED BY or SAMPLE ANALYZED BY respectively.

EXHIBIT NO: WAQC.108
DESCRIPTION: This document is the Bacteriolcgical or Turbidity Summary Analysis Input Form used to enter summary sample data for Bacteriological and Turbidity contaminants into the Periodic Sample File (PSF) in program module WAQC010.

-The PWS ID is a seven digit identification code of the Public Water System to which the sample applies. The identification code must be on the Public Water Table (PWT).

-TRANSACTION CODE is preprinted on the form as "07" and represents the input transaction code for Bacteriological or Turbidity Summary analysis results.

-The name and mailing address of the Public Water System may be entered on the form under PUBLIC WATER SYSTEM NAME AND ADDRESS.

-CONTAMINANT ID is the Ccntaminant ID Code of the Bacteriolcgical or Trubidity contaminant to which the summary applies. The code must be on the Code Value Table (CVT) and the first digit must be a "0" for Turbidity contaminants and "3" for Bacteriological contaminants.

-The name of the ccntaminant bearing the Contaminant ID Code may be entered under CONTAMINANT NAME.

-ANALYSIS METHOD is a three-digit code of the method used in analyzing the samples. The analysis method must be present on the Laboratory Table (LBT) for the Laboratory performing most of the analysis if the analysis was performed by a laboratory.

-NUMBER OF SAMPLES REQUIRED is the minimum number of samples required to be taken by the Federal regulations or by the State regulations, whichever is greater.

-ACTUAL NUMBER OF SAMPLES TAKEN represents the actual number of samples included in the summary.

-SAMPLE ANALYSIS RESULTS HIGHEST is the highest single sample result obtained from all the samples comprising the summary. Only the significant digits are entered.

-SAMPLE ANALYSIS RESULTS DEC is the number of decimal places in the Sample Analysis Results Highest for Turbidity and Chlorine Residual samples. Enter a "0" for Bacteriological Samples using membrane filter or fermentation tube methods.

-SAMPLE ANALYSIS RESULTS LOWEST is the lowest single sample result obtained from all the samples comprising the summary. Enter only the significant digits.

-SAMPLE ANALYSIS RESULTS DEC is the number of decimal places in SAMPLE ANALYSIS RESULTS LOWEST for Turbidity and Chlorine Residual samples. Enter a "0" for bacteriological samples using membrane filter or fermentation tube methods. -SAMPLE ANALYSIS RESULTS AVERAGE is the arithmetic mean of the analysis result of all the samples comprising the summary. Enter only the significant digits.

-SAMPLE ANALYSIS RESULTS DEC is the number of decimal places in SAMPLE ANALYSIS RESULTS AVERAGE.

-NUMBER OF SAMPLES IN VIOLATION FEDERAL MCL is the number of single samples violating the Federal MCL for coliform or turbidity. It is necessary only if the Federal MCL was violated.

-NUMBER OF SAMPLES IN VIOLATION STATE MCL is the number of single samples violating the State MCL for coliform or turbidity. It is necessary only if the State MCL was violated.

-LONGEST VIOLATION DURATION is the duration expressed in days of the longest outstanding violation of Federal or State regulations depending on whichever is the greater. Enter only if there is an outstanding violation.

-SAMPLE PERIOD START is ths starting date of the period during which samples are required to be taken. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-SAMPLE PERIOD END is the ending date of the period during which samples are required to be taken. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-SAMPLE TYPE is the type of code of the sample taken. Enter a "C", "D", "P", "R", or "S" according to the sample type key on the input form.

-DATE OF LAST SAMPLE is the date on which the last sample of the period was taken. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-LABORATORY ID represents the Identification Code of the Laboratory analyzing the most samples of the summary sample group. It must be entered for membrane filter and fermentation sample analyses. The Laboratory must be on the Laboratory Table (LBT) and its authorized expiration date has not passed for membrane filter and fermentation tube sample analyses.

-The name of the Laboratory bearing the Identification Code may be entered under LABORATORY ANALYZING THE MOST SAMPLES NAME.

-CHECK SAMPLES REGULATIONS REQUIRED NUMBER TAKEN FEDERAL is whether or not check samples were taken in a manner and quantity to satisfy Federal regulation requirements. It is necessary only if check samples were required to be taken. Enter either a "Y" if met or exceeded Federal check sampling requirements or "N" if did not meet Federal check sampling requirements.

-CHECK SAMPLES REGULATIONS REQUIRED NUMBER TAKEN STATE is the same as above except based on state regulations.

-CHECK SAMPLES ACTUAL NUMBER TAKEN represents the actual number of check samples taken.

-NOTIFIED OF VIOLATIONS PUBLIC indicates whether or not the Public was notified in the event of a violation. It is necessary only if there was a violation which required Public notification. If entered, code a "Y" if the Public was notified or an "N" if the Public was not notified.

-NOTIFIED OF VIOLATIONS STATE indicates whether or not the State was notified in the event of a violation. It is necessary only if there was a violation which required State notification. If entered, code a "Y" if State notified or an "N" if State not notified.

EXHIBIT NO: WAQC.110
DESCRIPTION: This document is the Sample Deletion Transactions form used to delete records from the Sample Analysis File (SAF) in WAQC020.

-The PWS ID is a seven digit Identification Code of the Public Water System to which the sample applies. The Identification Code must be on both the Public Water Table (PWT) and the Sample Analysis File (SAF) in order for records to be deleted.

-CONTAMINANT ID is a four digit Contaminant Identification Code of the sample record to be deleted. The code must be on both the Code Value Table (CVT) and the Sample Analysis File (SAF) in order for the record to be deleted.

-The name of the Contaminant bearing the Contaminant ID code may be entered on the form under CONTAMINANT NAME.

-The ANALYSIS METHOD is a three-digit code of the analysis method of the sample record to be deleted. The first digit must be the same as the first digit of Contaminant ID and the analysis method must be on the Sample Analysis File (SAF) in order for the record to be deleted.

-SAMPLE KEY is the ten-digit sample key of the sample record to be deleted.

EXHIBIT NO: WAQC.111
DESCRIPTION: This PROC option contains a date which is used on the reports created by WAQC011 and WAQC125.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

EXHIBIT NO: WAQC.113
DESCRIPTION: This PROC option contains the current date which is used to be printed on the report created by WAQC220.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The first PURGE DATE represents the purge date for contaminant group 0, the second PURGE DATE represents the purge date for contaminant group 1, the third PURGE DATE represents the purge date for contaminant group 2, the fourth PURGE DATE represents the purge date for contaminant group 3, and the fifth PURGE DATE represents the purge date for contaminant group 4. The purge date is entered only if records for the contaminant group are to be purged, otherwise the purge date is left blank. Code the date as explained above.

-The Purge Report Processing Option represents whether or not a purge report is to be created. Enter a "Y" if a purged report is to be produced else enter an "N" for no report.

EXHIBIT NO: WAQC114
DESCRIPTION: This PROC option contains the current date for the job which is used to be printed on the report created by WAQC130.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-SCHEDULING RERUN OPTION indicates if this scheduling job is a rerun of the last one which means the output of this run is to be identical to the output of the last scheduling job run. Enter a "Y" if the job is a rerun else enter an "N" or leave blank if not a rerun. A default of "N" is assumed if no entry is made.

-MONTHLY OPERATIONS REPORT OPTION indicates if Monthly Operations Report Update Forms for the next month are desired for those Public Water Systems required to submit the Monthly Operations Report. Enter a "Y" if the Update Forms are desired. The month scheduled will be the next one after the date entered in columns five through ten. Enter an "N" or leave blank if no Update Forms desired. A default of "N" is assumed if no entry is made.

EXHIBIT NO: WAQC.115
DESCRIPTION: This PROC option contains the current date which is used to be printed on the report created in WAQC100.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-FROM DATE is the desired selection period start date within which the contaminant group or groups are to be selected. Code date as indicated above.

-TO DATE is the desired selection period ending date within which the contaminant group or groups are to be selected. Code date as indicated above.

-Under CONTAMINANT GROUP 0 enter a "Y" if records in the Turbidity Contaminant Group are to be selected else enter an "N". Under CONTAMINANT GROUP 1 enter a "Y" if records in the Inorganic Chemical Contaminant Group are to be selected else enter an "N". Under CONTAMINANT GROUP 2 enter a "Y" if records in the Organic Chemical Contaminant Group are to be selected else enter an "N". Under CONTAMINANT GROUP 3 enter a "Y" if records in the Bacteriological Contaminant Group are to be selected else enter an "N". Under CONTAMINANT GROUP 4 enter a "Y" if records in the Radiological Contaminant Group are to be selected else enter an "N".

-Under SUMMARY OR LIST CHEMICAL enter an "S" if only summaries of chemical sample data are to be printed on the reports or enter an "L" if a list of every sample is to be printed along with the summary. If "S" is used, the last detail sample will be printed with the summary. An entry must be made if Contaminant Group 1 (Inorganic Chemical) and/or Contaminant Group 2 (Organic Chemical) contains a "Y".

-Under SUMMARY OR LIST RADIOLOGICAL enter an "S" if only summaries of radiological sample data are to be printed on the reports or enter an "L" if a list of every sample is to be printed along with the summary. If "S" is used, the last detail sample will be printed with the summary. An entry must be made if Contaminant Group 4 (Radiological) contains a "Y".

EXHIBIT NO: WAQC.116
DESCRIPTION: Refer to Section III, User Defined Selection of Information, in this manual for complete instructions. This form will be used with program modules WAQC100 and WAQC125.

EXHIBIT NO: WAQC.117
DESCRIPTION: Refer to Section III, User Defined Selection of Information, in this manual for complete instructions. This form will be used with program modules WAQC100 and WAQC125.

EXHIBIT NO: WAQC.118
DESCRIPTION: This PROC option contains the current date which is used to be printed on the report produced by WAQC120.

-Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of year under the "Y".

-The first Standard Error Processing Option is to determine whether or not a file of error records is to be created. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices. The second option is used to determine whether the entire transaction should be printed on the error report or only those fields which are in error.

-The Standard history Processing Option determines what is printed on the report or whether a report is to be printed. The instructions are self-explanatory.

EXHIBIT NO: WAQC.119
DESCRIPTION: This document is the Violations File Record Creation and Maintenance Form used to create a new Violations File (VIF) record or update information on an existing Violations File (VIF) record in WAQC120.

-VIOLATION IDENTIFICATION is the five-digit Violation identification number. It is entered on all cards. The first one must be zero.

-RECORD CREATION indicates whether a new record is being created or not. Enter a "Y" to create a new record; otherwise omit the entire card.

-PWS ID is a seven-digit identification number of the Public Water System to which the sample applies.

-REGULATION LEVEL is the type and level of the regulation violated. The first digit is either an "F" for Federal or an "S" for State. The second digit is either a "P" for primary or an "S" for secondary.

-CONTAMINANT ID is a four-digit Contaminant identification number of the contaminant asscciated with the violation. The Contaminant ID must be on the Code Value Table (CVT).

-LAB ID is the identification code of the laboratory which analyzed the sample or samples in violation. The Lab ID must be on the Labcratory Table (LBT).

-SAMPLE DATE is the date on which the sample in violation was taken. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of year under the "Y".

-SAMPLES NUMBER REQUIRED is the number of samples which were required to be taken according to the regulations governing the monitoring of the contaminant associated with the violation.

-SAMPLES NUMBER TAKEN is the actual number of samples which were taken for the contaminant associated with the violation.

-ANALYSIS METHOD is a three-digit code of the analysis method used to analyze the sample in violation. The analysis method for the Labcratory must appear on the Laboratory Table (LBT).

-ANALYSIS RESULT is a five-digit analysis result ofthe sample in violation.

-ANALYSIS DECIMALS is the number of fractional decimal places in the Analysis Result.

-ANALYSIS DATE is the date on which the analysis was performed.

-SAMPLING CUT-OFF DATE is the last date of the current sampling compliance period. Code the dates as indicated above.

EXHIBIT NO: WAQC.120
DESCRIPTION: This document is the Violation File Record Creation and Maintenance Form used to update information on an existing Violations File (VIF) record or to delete an existing Violations File (VIF) record in WAQC120.

-VIOLATION IDENTIFICATION is a five-digit Violation identification number. It is entered on all cards.

-VIOLATION TYPE is a two-digit code identifying the type of violation. The code must be on the Code Value Table (CVT).

-VIOLATION DATE is the effective date of the violation. Code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of year under "Y".

-MCL VIOLATED is the Maximum Contaminant Level (MCL) identified by the Regulations, the State, or as a condition of a Variance, Exemption, or Enforcement Action which was viclated.

-MCL VIOLATED DECIMALS is the number of fractional decimal places designated in the MCL Violated.

-SAMPLING FREQUENCY VIOLATED is the sampling frequency requirement which was violated. For bacteriological sampling frequency enter the value in days otherwise enter the value in months.

-NUMBER SAMPLES VIOLATED is the number of samples which violated the Maximum Contaminant Level (MCL).

-VIOLATION DURATION is the duration of the violation expressed in months.

-NOTIFY PUBLIC and NOTIFY STATE indicate whether the Public and the State were notified or not. Enter a "Y" if notified else enter an "N".

-SAMPLE TYPE is the type of code of the sample taken. Enter a "C" for Check Sample, "P" for Plant Tap Water Sample, "D" for Regular Distribution Sample, "R" for Raw Water Sample, and "S" for Special Sample.

-SAMPLE KEY is a ten-digit sample key which uniquely identifies the sample associated with the violation on the Periodic Sample File (PSF).

-DATE LAST REPORT is the date on which the last monthly operation report was submitted. Code the date as indicated above.

-TIME SINCE LAST REPORT is the number of months that have elapsed since the last monthly operation report was submitted.

-REMARKS is reserved for the entry of additional information pertaining to the viclation.

-RECORD DELETION indicates whether or not to delete a record. Enter a "Y" to delete the record else omit the card.

EXHIBIT NO: WAQC.121
DESCRIPTION: This PROC option contains the current date for the job which is used to be printed on the report created by WAQC025.

-Code the two-digit month under "M", the two-digit day under "D", and the last two digits of year under the "Y".

-PROCESSING LAG TIME is the lag time between the end of a compliance cycle and the processing of that cycle expressed in days. This time delay includes the mailing time, the analysis time, and the data entry time which is the time it takes to get the data for a compliance period into the system. A default value of ten will be assumed if no entry made.

-BACTERIOLOGICAL/TURBIDITY COMPLIANCE CYCLE is the day of the month or quarter on which the compliance cycle begins for samples which are to be processed for Bacteriological and Turbidity violations. A default of "01" is assumed if no entry is made.

-INORGANIC CHEMICALS AVERAGE DAILY MAXIMUM AIR TEMPERATURE is the average daily maximum air temperature to be used in processing Inorganic Chemical violations when no value is present in the Public Water File. Enter in accordance with the National Primary Interim Drinking Water Regulations - Part IV. Enter a two decimal digit followed by a one decimal fraction.

-Under UNITS, which follows, enter the units of measurement used in the air temperature. An "F" is entered for Fahrenheit and a "C" for Celsius.

-ORGANIC CHEMICALS SEASONAL SAMPLING DATES FROM UNTIL are the starting date and the ending date of the sampling season for Organic Chemicals to be used in processing violations when no seasonal dates are present in the Public Water File record. Enter in accordance with the National Interim Primary Drinking Water Regulations - Part IV. Code the date as indicated above.

-OPERATIONS REPORT PROCESSING MONTH is the month for which Operations Report violations are to be processed. If no entry is made, Operations Report violations are not processed. Code the two-digit month under the "M" and the last two digits of year under the "Y".

EXHIBIT NO: WAQC.124
DESCRIPTION: This document is the Sample Scheduling Input Form used to determine what sample schedule output is to be produced for each Public Water System (PWS) for WAQC130.

-PWS-ID is a seven-digit Public Water System (PWS) identification number for the PWS to be scheduled.

-Under TURBIDITY, enter a "Y" if Turbidity samples are to be scheduled for this Public Water System else enter an "N" or leave blank. If the latter, a default of "N" is assumed.

-Under CHEMICALS enter a "Y" if Chemical samples are to be scheduled for the Public Water System else enter an "N" or leave blank. If the latter, a default of "N" is assumed.

-Under, RADIONUCLIDES NATURAL, enter a "Y" if Natural Radionuclide samples are to be scheduled for this Public Water System else enter an "N" or leave blank. If the latter, a default of "N" is assumed.

-Under RADIONUCLIDES MAN-MADE, enter a "Y" if Man-Made Radionuclides are to be scheduled for this Public Water System else enter an "N" or leave blank. If the latter, a default of "N" is assumed.

-BACTERIOLOGICAL MAILING LABELS OPTIONS indicates if mailing labels are desired for those Bacteriological samples scheduled for the Public Water System. Code "S" for one label for this Public Water System. Code "A" for one label for each Bacteriological sample scheduled for the Public Water System. Code a "P" which will indicate that the number of labels for this Public Water System will be specified under BACTERIOLOGICAL MAILING LABELS NUMBER (columns 14-15) with the number falling between "01" and "99". These latter two columns are left blank if "P" is not coded or a specified number is not desired. If no mailing labels are desired, enter an "N" or leave blank. If the latter, a default of "N" is assumed.

-RESCHEDULE CHEMICALS and RESCHEDULE RADIONUCLIDES indicates whether Chemical samples and Natural or Man-Made Radionuclide samples respectively scheduled for this Public Water System during the latest scheduling processing are to be scheduled again during this scheduling job run. Code a "Y" if rescheduling is desired else code an "N" or leave blank. If the latter, a default of "N" is assumed.

EXHIBIT NO: WAQC.125
DESCRIPTION: This document is the Restart Form used to specify the page number at which printing will be restarted for WAQC150, WAQC170, and WAQC180.

-Under RESTART NUMBER enter the page number at which printing of the turnaround document is to be restarted.

3. Output Reports

Each report created by this subsystem is explained in detail, field by field, telling from where the data was obtained and how it was manipulated, if at all. They are arranged numerically by exhibit number.

WAQC210 1 OF 1
10/28/76

LAT CREATION MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.300

MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

WAQC210

DATE XX/XX/XX

LABORATORY TABLE REPORT

PAGE ZZZZ9

	LAB ID	LABORATORY NAME
1	XXXXX	2 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

OWNER TYPE	EXPIRATION DATE
3 X	4 XX/XX/XX

CONTAMINANT GROUP	AUTHORIZED ANALYSIS METHOD CODES
0	XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
	XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
1	XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
	XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
2	XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
	XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
3	XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
	XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
4	XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
	XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX

5

EXHIBIT NO: WAQC.300 PAGE 1 OF 1

PROGRAM NO: WAQC210

TITLE: Laboratory Table Report

FIELD NO: 1 DATA ELEMENT NAME: LBT-LAB-ID
CATALOGUE NO: 319 DESCRIPTION: Code identification of an approved laboratory for Water Sampling Analysis.

FIELD NO: 2 DATA ELEMENT NAME: LBT-LAB-NAME
CATALOGUE NO: 322 DESCRIPTION: Name of the approved laboratory.

FIELD NO: 3 DATA ELEMENT NAME: LBT-OWNER-TYPE
CATALOGUE NO: 321 DISCRIPTION: The owner type of the approved laboratory.

FIELD NO: 4 DATA ELEMENT NAME: LBT-EXPIRATION-DATE
CATALOGUE NO: 323 DESCRIPTION: Date on which the approval of the laboratory terminates.

FIELD NO: 5 DATA ELEMENT NAME: LBT-ANALYSIS-METHOD
CATALOGUE NO: 809 DESCRIPTION: Code for a particular method of analyzing water samples.

WAQC010 1 OF 1
12/17/76

PSF DATA ENTRY AND UPDATE MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT WAQC.301

WAQC010

MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX

UPDATE REPORT - PERIODIC SAMPLE FILE

PAGE ZZZZ9

ACTION TAKEN	--------RECORD KEY----------	----------REMAINDER OF THE RECORD----------
ADDED	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
DELETED	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

1 2 3

EXHIBIT NO: WAQC.301 PAGE 1 OF 1

PROGRAM NO: WAQC010

TITLE: Update Report - Periodic Sample File

FIELD NO: 1
DESCRIPTION: States whether the record was added to or deleted from the Periodic Sample File.

FIELD NO: 2
DESCRIPTION: RECORD KEY: PWS-ID, Contaminant ID, location code, sample type, date, time and key, record type.

FIELD NO: 3
DESCRIPTION: Remainder of record image.

WAQC011 1 OF 1
12/17/76

PSF TRANSACTION REPORT
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.302

WAQC011

MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX

TRANSACTION SORT SEQUENCE REPORT - PERIODIC SAMPLE FILE

PAGE ZZZZ9

	MNEMONIC NAME	SORT MODE
1.	XXXXXXXXXX	X
2.	XXXXXXXXXX	X
3.	XXXXXXXXXX	X
4.	XXXXXXXXXX	X
5.	XXXXXXXXXX	X
6.	XXXXXXXXXX	X
7.	XXXXXXXXXX	X
8.	XXXXXXXXXX	X
9.	XXXXXXXXXX	X
10.	XXXXXXXXXX	X
	1	2

EXHIBIT NO: WAQC.302 PAGE 1 OF 1

PROGRAM NO: WAQC011

TITLE: Transaction Sort Sequence Report

FIELD NO: 1
DESCRIPTION: Mnemonic name of sort field.

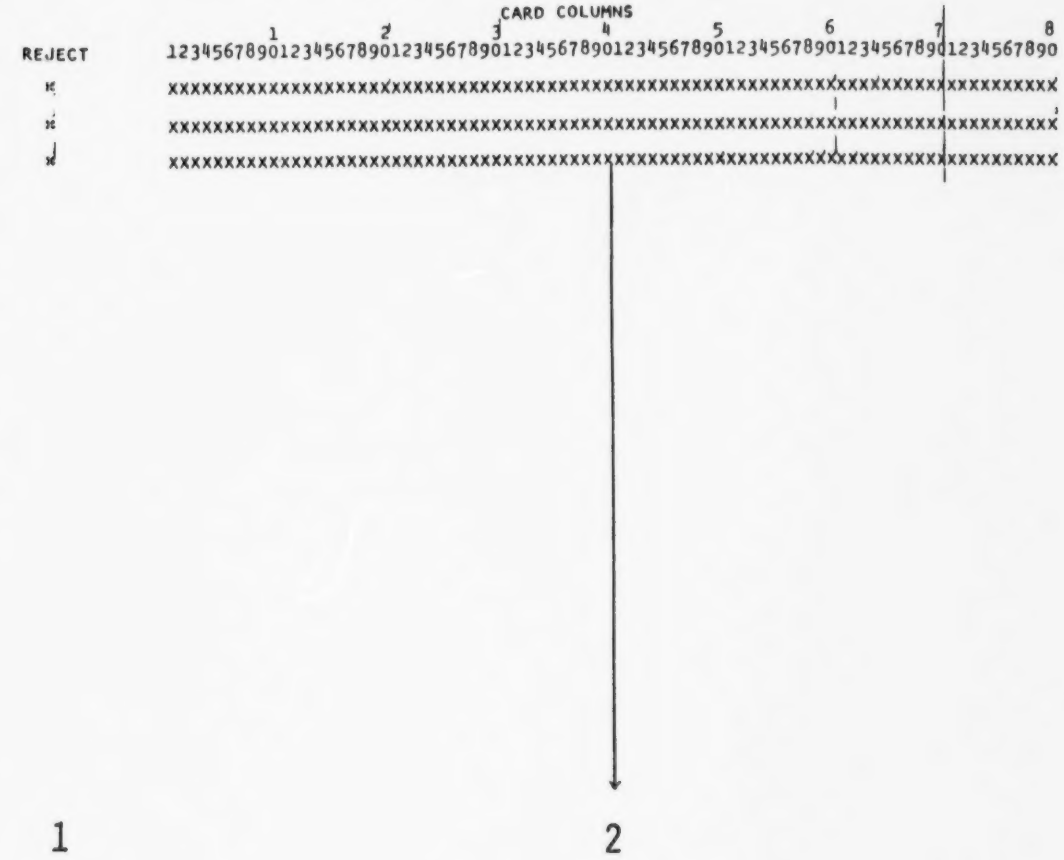
FIELD NO: 2
DESCRIPTION: Mode of sort field; A = Ascending,
D = Descending.

WAQC011 1 OF 1
12/17/76

PSF TRANSACTION REPORT
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.303

WAQC011 MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX INPUT TRANSACTION REPORT - PERIODIC SAMPLE FILE PAGE ZZZZ9



1 2

EXHIBIT NO: WAQC.303 PAGE 1 OF 1

PROGRAM NO: WAQC011

TITLE: Input Transaction Report - Periodic Sample File

FIELD NO: 1
DESCRIPTION: An asterisk (*) denotes the transaction has been rejected due to errors.

FIELD NO: 2
DESCRIPTION: A character image of the input.

WAQC020 1 OF 1
12/30/76

SAF UPDATE MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.304

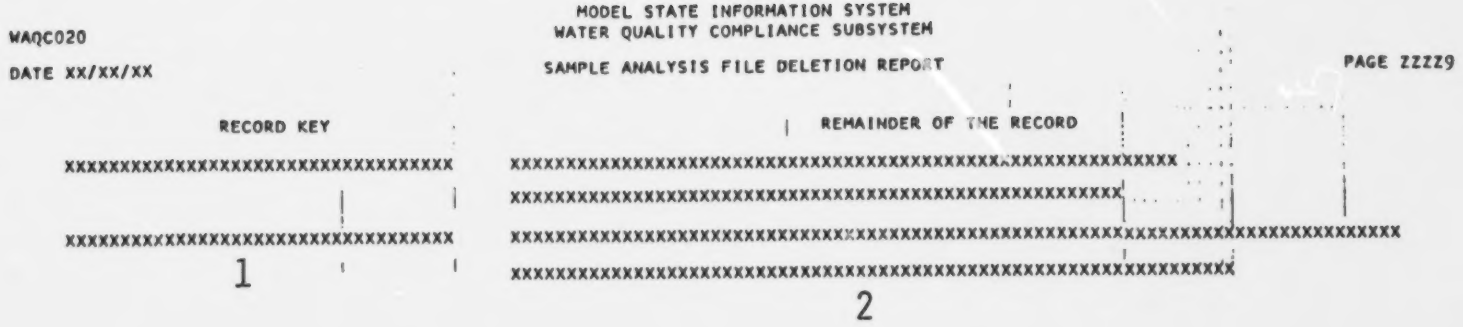


EXHIBIT NO: WAQC.304 PAGE 1 OF 1

PROGRAM NO: WAQC020

TITLE: Sample Analysis File Deletion Report

FIELD NO: 1
DESCRIPTION: Record key: PWS ID, Contaminant ID, location code, sample type, date, time and key, and record type.

FIELD NO: 2
DESCRIPTION: Remainder of record image.

WAQC041 1 OF 1
1/13/77

RADIOLOGICAL MCL VIOLATIONS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.306

WAQC041 MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX CHEMICAL MCL VIOLATIONS REPORT PAGE ZZZZ9

PERIOD XX/XX/XX TO XX/XX/XX

1 PWS-ID	---PUBLIC WATER SYSTEM NAME--- 2	3 REGION	4 DISTRICT	----NOTIFY--- PUBLIC 5	STATE 6
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX	XX	X	X

7 LABORATORY ID	LABORATORY NAME 8	9 CONTAMINANT ID	CONTAMINANT NAME 10	11 PWS TYPE	PWS POPULATION 12	PWS SOURCE 13
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	X	XXXXXXXXX	X

14 SAMPLE DATE	SAMPLE TYPE 15	16 ANALYSIS DATE	ANALYSIS METHOD 17	ANALYSIS RESULTS 18	19 VIOLATION TYPE	VIOLATION DATE 20	VIOLATION DURATION (MONTHS) 21	22 MCL VIOLATED	REGULATION LEVEL 23
XX/XX/XX	XX	XX/XX/XX	XXX	XXXXXXXXXX	X	XX/XX/XX	XX	XXXXXXXXXX	XX

PWS-ID	---PUBLIC WATER SYSTEM NAME---	REGION	DISTRICT	----NOTIFY--- PUBLIC	STATE
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX	XX	X	X

LABORATORY ID	LABORATORY NAME	CONTAMINANT ID	CONTAMINANT NAME	PWS TYPE	PWS POPULATION	PWS SOURCE
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	X	XXXXXXXXX	X

SAMPLE DATE	SAMPLE TYPE	ANALYSIS DATE	ANALYSIS METHOD	ANALYSIS RESULTS	VIOLATION TYPE	VIOLATION DATE	VIOLATION DURATION (MONTHS)	MCL VIOLATED	REGULATION LEVEL
XX/XX/XX	XX	XX/XX/XX	XXX	XXXXXXXXXX	X	XX/XX/XX	XX	XXXXXXXXXX	XX

EXHIBIT NO: WAQC.306 PAGE 1 OF 3

PROGRAM NO: WAQC040

TITLE: Chemical MCL Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIF-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIF-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIF-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIF-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIF-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIF-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 8 DATA ELEMENT NAME: VIF-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis.

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the Contaminant in violation.

PROGRAM NO: WAQC040

TITLE: Chemical MCL Violations Report

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation.

FIELD NO: 16 DATA ELEMENT NAME: VIF-ANALYSIS-DATE
CATALOGUE NO: 341 DESCRIPTION: Date of the analysis in violation, converted from Julian format.

FIELD NO: 17 DATA ELEMENT NAME: VIF-ANALYSIS-METHOD
CATALOGUE NO: 338 DESCRIPTION: Code identifying the analysis method used.

FIELD NO: 18 DATA ELEMENT NAME: VIF-ANALYSIS-RESULT
CATALOGUE NO: 339 DESCRIPTION: The result of the analysis.

FIELD NO: 18 DATA ELEMENT NAME: VIF-ANALYSIS-DECIMALS
CATALOGUE NO: 340 DESCRIPTION: The number of decimal places to be used for VIF-ANALYSIS-RESULT.

PROGRAM NO: WAQC040

TITLE: Chemical MCL Violations Report

FIELD NO: 19 DATA ELEMENT NAME: VIP-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation.

FIELD NO: 20 DATA ELEMENT NAME: VIP-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Date the violation occurred, converted from Julian format.

FIELD NO: 21 DATA ELEMENT NAME: VIP-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 22 DATA ELEMENT NAME: VIP-MCL-VIOLATED
CATALOGUE NO: 345 DESCRIPTION: The MCL which was violated.

FIELD NO: 22 DATA ELEMENT NAME: VIP-MCL-VIOL-DECIMALS
CATALOGUE NO: 346 DESCRIPTION: The number of decimal places to be used for VIP-MCL-VIOLATED.

FIELD NO: 23 DATA ELEMENT NAME: VIP-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

WAQC050 1 OF 1
2/11/77

BACTERIOLOGICAL SAMPLING VIOLATIONS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.307

WAQC050 MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX BACTERIOLOGICAL MCL VIOLATIONS REPORT PAGE ZZZZ9

PERIOD XX/XX/XX TO XX/XX/XX

PWS-ID	PUBLIC WATER SYSTEM NAME	REGION	DISTRICT	NOTIFY PUBLIC	NOTIFY STATE
1 XXXXXXX	2 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	3 XX	4 XX	5 X	X 6

LABORATORY ID	LABORATORY NAME	CONTAMINANT ID	CONTAMINANT NAME	PWS TYPE	PWS POPULATION	PWS SOURCE
7 XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 8	9 XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 10	11 X	12 XXXXXXXX	13 X

SAMPLE DATE	SAMPLE TYPE	ANALYSIS DATE	ANALYSIS METHOD	ANALYSIS RESULTS	VIOLATION TYPE	VIOLATION DATE	VIOLATION DURATION (MONTHS)	MCL VIOLATED	REGULATION LEVEL
XX/XX/XX	X	XX/XX/XX	XXX	XXXXXXXXXX	XX	XX/XX/XX	XX	XXXXXXXXXX	XX
14	15	16	17	18	19	20	21	22	23

PWS-ID	PUBLIC WATER SYSTEM NAME	REGION	DISTRICT	NOTIFY PUBLIC	NOTIFY STATE
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX	XX	X	X

LABORATORY ID	LABORATORY NAME	CONTAMINANT ID	CONTAMINANT NAME	PWS TYPE	PWS POPULATION	PWS SOURCE
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	X	XXXXXXXX	X

SAMPLE DATE	SAMPLE TYPE	ANALYSIS DATE	ANALYSIS METHOD	ANALYSIS RESULTS	VIOLATION TYPE	VIOLATION DATE	VIOLATION DURATION (MONTHS)	MCL VIOLATED	REGULATION LEVEL
XX/XX/XX	X	XX/XX/XX	XXX	XXXXXXXXXX	XX	XX/XX/XX	XX	XXXXXXXXXX	XX

EXHIBIT NO: WAQC.307 PAGE 1 OF 3

PROGRAM NO: WAQC050

TITLE: Bacteriological MCL Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIP-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIP-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIP-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIP-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIP-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIP-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether state notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIP-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 8 DATA ELEMENT NAME: VIP-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis.

FIELD NO: 9 DATA ELEMENT NAME: VIP-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIP-CONTAMINANT-ID.

PROGRAM NO: WAQC050

TITLE: Bacteriological MCL Violations Report

FIELD NO: 11 DATA ELEMENT NAME: VIP-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIP-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIP-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIP-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format.

FIELD NO: 15 DATA ELEMENT NAME: VIP-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: Code identifying the type of sample taken in violation.

FIELD NO: 16 DATA ELEMENT NAME: VIP-ANALYSIS-DATE
CATALOGUE NO: 341 DESCRIPTION: Date of the analysis in violation, converted from Julian format.

FIELD NO: 17 DATA ELEMENT NAME: VIP-ANALYSIS-METHOD
CATALOGUE NO: 338 DESCRIPTION: A code identifying the analysis method used.

FIELD NO: 18 DATA ELEMENT NAME: VIP-ANALYSIS-RESULT
CATALOGUE NO: 339 DESCRIPTION: The result of the analysis.

FIELD NO: 18 DATA ELEMENT NAME: VIP-ANALYSIS-DECIMALS
CATALOGUE NO: 340 DESCRIPTION: The number of decimal places to be used for VIP-ANALYSIS-RESULT.

FIELD NO: 19 DATA ELEMENT NAME: VIP-VIOLATION-DATE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation.

PROGRAM NO: WAQC050

TITLE: Bacteriological MCL Violations Report

FIELD NO: 20 DATA ELEMENT NAME: VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Date the violation occurred, converted from Julian format.

FIELD NO: 21 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 22 DATA ELEMENT NAME: VIF-MCL-VIOLATED
CATALOGUE NO: 345 DESCRIPTION: The MCL which was violated.

FIELD NO: 22 DATA ELEMENT NAME: VIF-MCL-VIOL-DECIMALS
CATALOGUE NO: 346 DESCRIPTION: The number of decimal places to be used for VIF-MCL-VIOLATED.

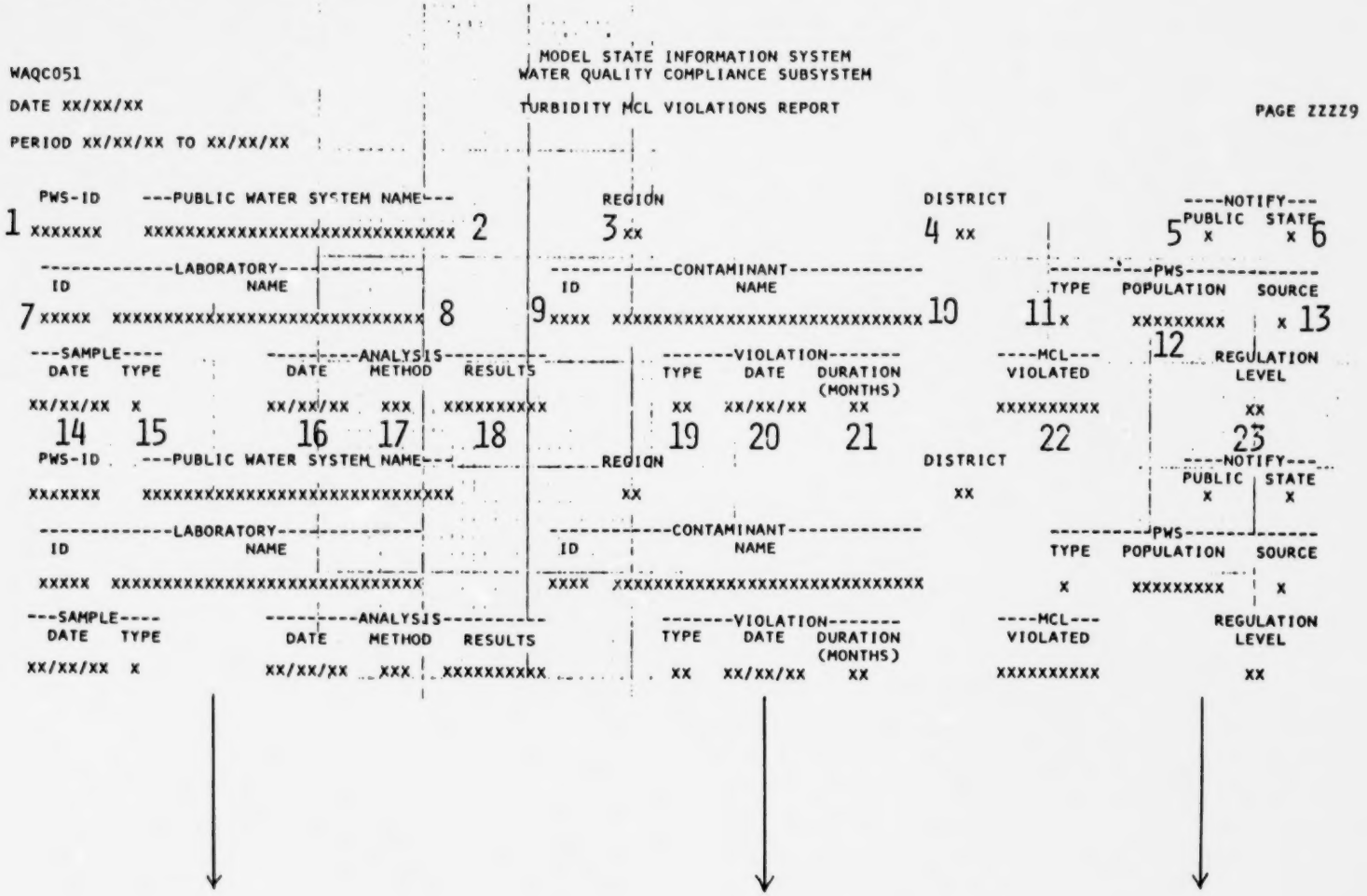
FIELD NO: 23 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

WAQC051 1 OF 1
2/11/77

TURBIDITY SAMPLING VIOLATIONS REPORT MODULE

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT WAQC.308



PROGRAM NO: WAQC051

TITLE: Turbidity MCL Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIP-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIP-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIP-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIP-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIP-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIP-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIP-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 8 DATA ELEMENT NAME: VIP-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis.

PROGRAM NO: WAQC051

TITLE: Turbidity MCL Violations Report

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the Contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation.

FIELD NO: 16 DATA ELEMENT NAME: VIF-ANALYSIS-DATE
CATALOGUE NO: 341 DESCRIPTION: Date of the analysis in violation, converted from Julian format.

PROGRAM NO: WAQC051

TITLE: Turbidity MCL Violations Report

FIELD NO: 17 DATA ELEMENT NAME: VIF-ANALYSIS-METHOD
CATALOGUE NO: 338 DESCRIPTION: A code identifying the analysis method.

FIELD NO: 18 DATA ELEMENT NAME: VIF-ANALYSIS-RESULT
CATALOGUE NO: 339 DESCRIPTION: The result of the analysis.

FIELD NO: 18 DATA ELEMENT NAME: VIF-ANALYSIS-DECIMALS
CATALOGUE NO: 340 DESCRIPTION: The number of decimal places to be used for VIF-ANALYSIS-RESULT.

FIELD NO: 19 DATA ELEMENT NAME: VIF-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation.

FIELD NO: 20 DATA ELEMENT NAME: VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Date the violation occurred, converted from Julian format.

FIELD NO: 21 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 22 DATA ELEMENT NAME: VIF-MCL-VIOLATED
CATALOGUE NO: 345 DESCRIPTION: The MCL which was violated.

FIELD NO: 22 DATA ELEMENT NAME: VIF-MCL-VIOL-DECIMALS
CATALOGUE NO: 346 DESCRIPTION: The number of decimal places to be used for VIF-MCL-VIOLATED.

FIELD NO: 23 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

WAQC041 1 OF 1
1/13/77

RADIOLOGICAL MCL VIOLATIONS REPORT MODULE
. SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.309

WAQC041 MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX RADIOLOGICAL MCL VIOLATIONS REPORT PAGE ZZZZ9

PERIOD XX/XX/XX TO XX/XX/XX

PWS-ID	PUBLIC WATER SYSTEM NAME	REGION	DISTRICT	NOTIFY PUBLIC	NOTIFY STATE
1 XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	2 3 XX	4 XX	5 X	X 6

LABORATORY ID	LABORATORY NAME	CONTAMINANT ID	CONTAMINANT NAME	PWS TYPE	PWS POPULATION	PWS SOURCE
7 XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 8	9 XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 10	11 X	XXXXXXXXX	X 13

SAMPLE DATE	SAMPLE TYPE	ANALYSIS DATE	ANALYSIS METHOD	ANALYSIS RESULTS	VIOLATION TYPE	VIOLATION DATE	VIOLATION DURATION (MONTHS)	MCL VIOLATED	REGULATION LEVEL
XX/XX/XX	XX	XX/XX/XX	XXX	XXXXXXXXXX	X	XX/XX/XX	XX	XXXXXXXXXX	XX
14	15	16	17	18	19	20	21	22	23

PWS-ID	PUBLIC WATER SYSTEM NAME	REGION	DISTRICT	NOTIFY PUBLIC	NOTIFY STATE
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX	XX	X	X

LABORATORY ID	LABORATORY NAME	CONTAMINANT ID	CONTAMINANT NAME	PWS TYPE	PWS POPULATION	PWS SOURCE
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	X	XXXXXXXXX	X

SAMPLE DATE	SAMPLE TYPE	ANALYSIS DATE	ANALYSIS METHOD	ANALYSIS RESULTS	VIOLATION TYPE	VIOLATION DATE	VIOLATION DURATION (MONTHS)	MCL VIOLATED	REGULATION LEVEL
XX/XX/XX	XX	XX/XX/XX	XXX	XXXXXXXXXX	X	XX/XX/XX	XX	XXXXXXXXXX	XX

EXHIBIT NO: WAQC.309 PAGE 1 OF 3

PROGRAM NO: WAQC041

TITLE: Radiological MCL Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIF-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIF-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIF-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIF-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIF-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIF-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 8 DATA ELEMENT NAME: VIF-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis.

PROGRAM NC: WAQC041

TITLE: Radiological MCL Violaticns Report

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the Contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation.

FIELD NO: 16 DATA ELEMENT NAME: VIF-ANALYSIS-DATE
CATALOGUE NO: 341 DESCRIPTION: Date of the analysis in violation, converted from Julian format.

PROGRAM NO: WAQC041

TITLE: Radiological MCL Violations Report

FIELD NO: 17 DATA ELEMENT NAME: VIP-ANALYSIS-METHOD
CATALOGUE NO: 338 DESCRIPTION: A code identifying the analysis method used.

FIELD NO: 18 DATA ELEMENT NAME: VIP-ANALYSIS-RESULT
CATALOGUE NO: 339 DESCRIPTION: The result of the analysis.

FIELD NO: 18 DATA ELEMENT NAME: VIP-ANALYSIS-DECIMALS
CATALOGUE NO: 340 DESCRIPTION: The number of decimal places to be used for VIP-ANALYSIS-RESULT.

FIELD NO: 19 DATA ELEMENT NAME: VIP-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation.

FIELD NO: 20 DATA ELEMENT NAME: VIP-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Date the violation occurred, converted from Julian format.

FIELD NO: 21 DATA ELEMENT NAME: VIP-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 22 DATA ELEMENT NAME: VIP-MCL-VIOLATED
CATALOGUE NO: 345 DESCRIPTION: The MCL which was violated.

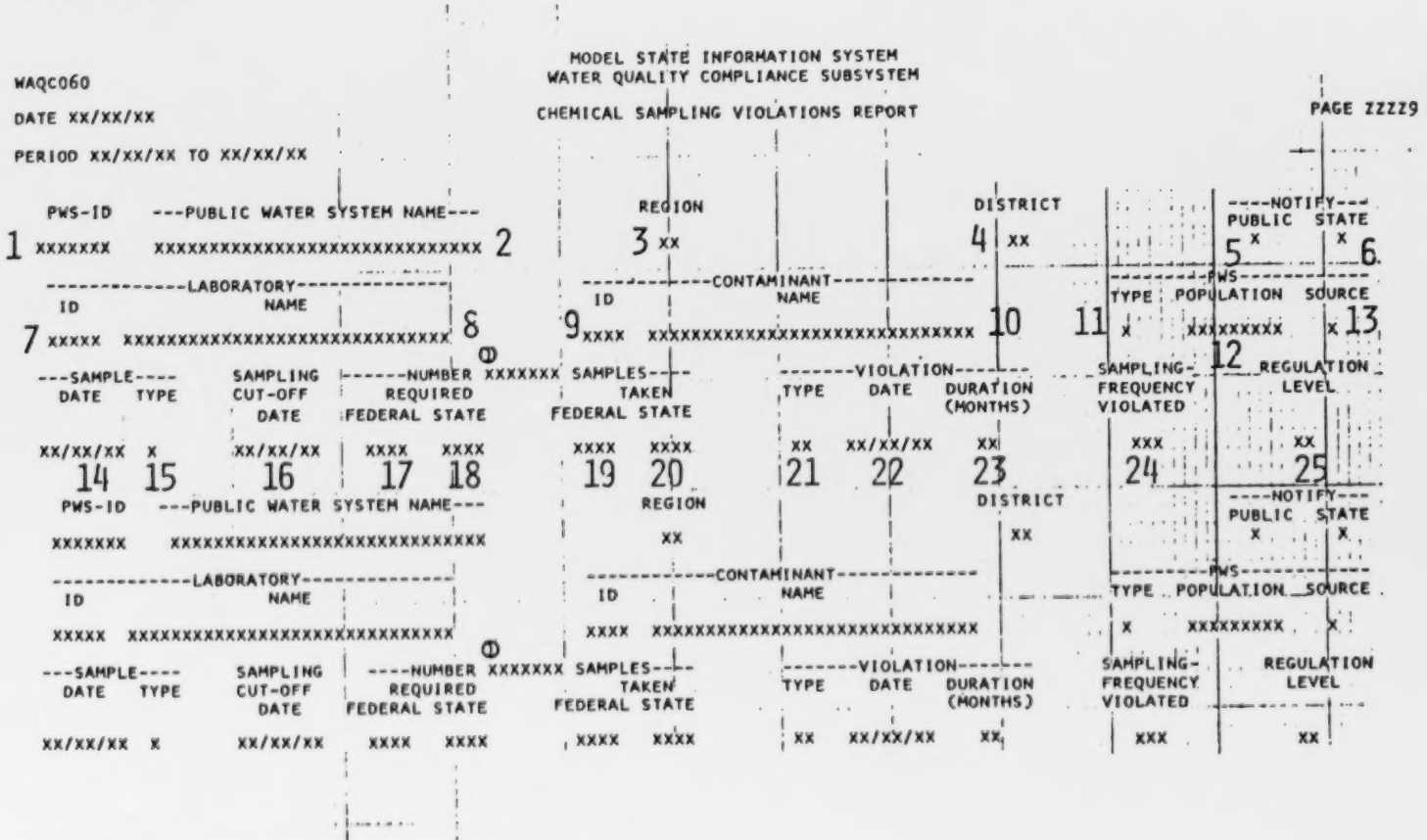
FIELD NO: 22 DATA ELEMENT NAME: VIP-MCL-VIOL-DECMALS
CATALOGUE NO: 346 DESCRIPTION: The number of decimal places to be used for VIP-MCL-VIOLATED.

FIELD NO: 23 DATA ELEMENT NAME: VIP-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

WAQC060 1 OF 1
2/11/77

CHEMICAL SAMPLING VIOLATIONS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT WAQC.310



① WILL CONTAIN EITHER "REGULAR" OR "CHECK" DEPENDING ON VIOLATION TYPE.

EXHIBIT NO: WAQC.310 PAGE 1 OF 3

PROGRAM NO: WAQC060

TITLE: Chemical Sampling Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIF-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIF-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIF-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIF-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIF-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIF-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 8 DATA ELEMENT NAME: VIF-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis.

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the Contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

PROGRAM NO: WAQC060

TITLE: Chemical Sampling Violations Report

FIELD NO: 11 DATA ELEMENT NAME: VIP-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIP-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIP-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIP-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format.

FIELD NO: 15 DATA ELEMENT NAME: VIP-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation.

FIELD NO: 16 DATA ELEMENT NAME: VIP-SAMPLING-CUTOFF-DATE
CATALOGUE NO: 342 DESCRIPTION: Date of the sampling cutoff, converted from Julian format.

FIELD NO: 17 DATA ELEMENT NAME: VIP-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by Federal regulation if VIP-REGULATION-LEVEL is equal to "FP", otherwise blank.

FIELD NO: 18 DATA ELEMENT NAME: VIP-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by State regulations if VIP-REGULATION-LEVEL is equal to "SP", otherwise blank.

PROGRAM NO: WAQC060

TITLE: Chemical Sampling Violations Report

FIELD NO: 19 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under Federal regulations if VIF-REGULATION-LEVEL is equal to "FP", otherwise blank.

FIELD NO: 20 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise blank.

FIELD NO: 21 DATA ELEMENT NAME: VIF-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation.

FIELD NO: 22 DATA ELEMENT NAME; VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Date the violation occurred, converted from Julian format.

FIELD NO: 23 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 24 DATA ELEMENT NAME: VIF-SAMPLING-FREQ-VIOL
CATALOGUE NO: 347 DESCRIPTION: Sampling frequency which was violated.

FIELD NO: 25 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

WAQC070 1 OF 1
2/11/77

BACTERIOLOGICAL MCL VIOLATIONS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.311

WAQC070 MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX BACTERIOLOGICAL SAMPLING VIOLATIONS REPORT PAGE ZZZZ9

PERIOD XX/XX/XX TO XX/XX/XX CYCLE 29

PWS-ID	---PUBLIC WATER SYSTEM NAME---	REGION	DISTRICT	----NOTIFY--- PUBLIC	STATE
1 XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX 2	3 XX	4 XX	5 X	X 6

----------LABORATORY---------- ID	NAME	----------CONTAMINANT---------- ID	NAME	---------PWS---------- TYPE	POPULATION	SOURCE
7 XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX 8	9 XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXX 10	11 X	XXXXXXXXX	X 13

---SAMPLE---- DATE	TYPE	SAMPLING CUT-OFF DATE	------NUMBER XXXXXXX REQUIRED FEDERAL	STATE	SAMPLES--- TAKEN FEDERAL	STATE	-------VIOLATION------- TYPE	DATE	DURATION (MONTHS)	SAMPLING-FREQUENCY VIOLATED	12	REGULATION LEVEL
XX/XX/XX	X	XX/XX/XX	XXXX	XXXX	XXXX	XXXX	XX	XX/XX/XX	XX	XXX		XX
14	15	16	17	18	19	20	21	22	23	24		25

PWS-ID	---PUBLIC WATER SYSTEM NAME---	REGION	DISTRICT	----NOTIFY--- PUBLIC	STATE
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX	XX	X	X

----------LABORATORY---------- ID	NAME	----------CONTAMINANT---------- ID	NAME	---------PWS---------- TYPE	POPULATION	SOURCE
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXX	X	XXXXXXXXX	X

---SAMPLE---- DATE	TYPE	SAMPLING CUT-OFF DATE	----NUMBER XXXXXXX REQUIRED FEDERAL	STATE	SAMPLES--- TAKEN FEDERAL	STATE	-------VIOLATION------- TYPE	DATE	DURATION (MONTHS)	SAMPLING-FREQUENCY VIOLATED	REGULATION LEVEL
XX/XX/XX	X	XX/XX/XX	XXXX	XXXX	XXXX	XXXX	XX	XX/XX/XX	XX	XXX	XX

① WILL CONTAIN EITHER "REGULAR" OR "CHECK" DEPENDING ON VIOLATION TYPE.

EXHIBIT NO: WAQC.311 PAGE 1 OF 3

PROGRAM NO: WAQC070

TITLE: Bacteriological Sampling Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIF-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIF-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIF-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIF-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIF-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIF-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 8 DATA ELEMENT NAME: VIF-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis.

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the Contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

PROGRAM NO: WAQC070

TITLE: Bacteriological Sampling Violations Report

FIELD NO: 11 DATA ELEMENT NAME: VIP-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIP-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIP-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIP-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format.

FIELD NO: 15 DATA ELEMENT NAME: VIP-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation.

FIELD NO: 16 DATA ELEMENT NAME: VIP-SAMPLING-CUTOFF-DATE
CATALOGUE NO: 342 DESCRIPTION: Date of the sampling cutoff, converted from Julian format.

FIELD NO: 17 DATA ELEMENT NAME: VIP-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by Federal regulation if VIP-REGULATION-LEVEL is equal to "FP", otherwise blank.

FIELD NO: 18 DATA ELEMENT NAME: VIP-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by State regulations if VIP-REGULATION-LEVEL is equal to "SP", otherwise blank.

PROGRAM NO: WAQC070

TITLE: Bacteriolgical Sampling Violations Report

FIELD NO: 19 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under Federal regulations if VIF-REGULATION-LEVEL is equal to "FP", otherwise blank.

FIELD NO: 20 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise blank.

FIELD NO: 21 DATA ELEMENT NAME: VIF-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation.

FIELD NO: 22 DATA ELEMENT NAME: VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Date the violation occurred, converted from Julian format.

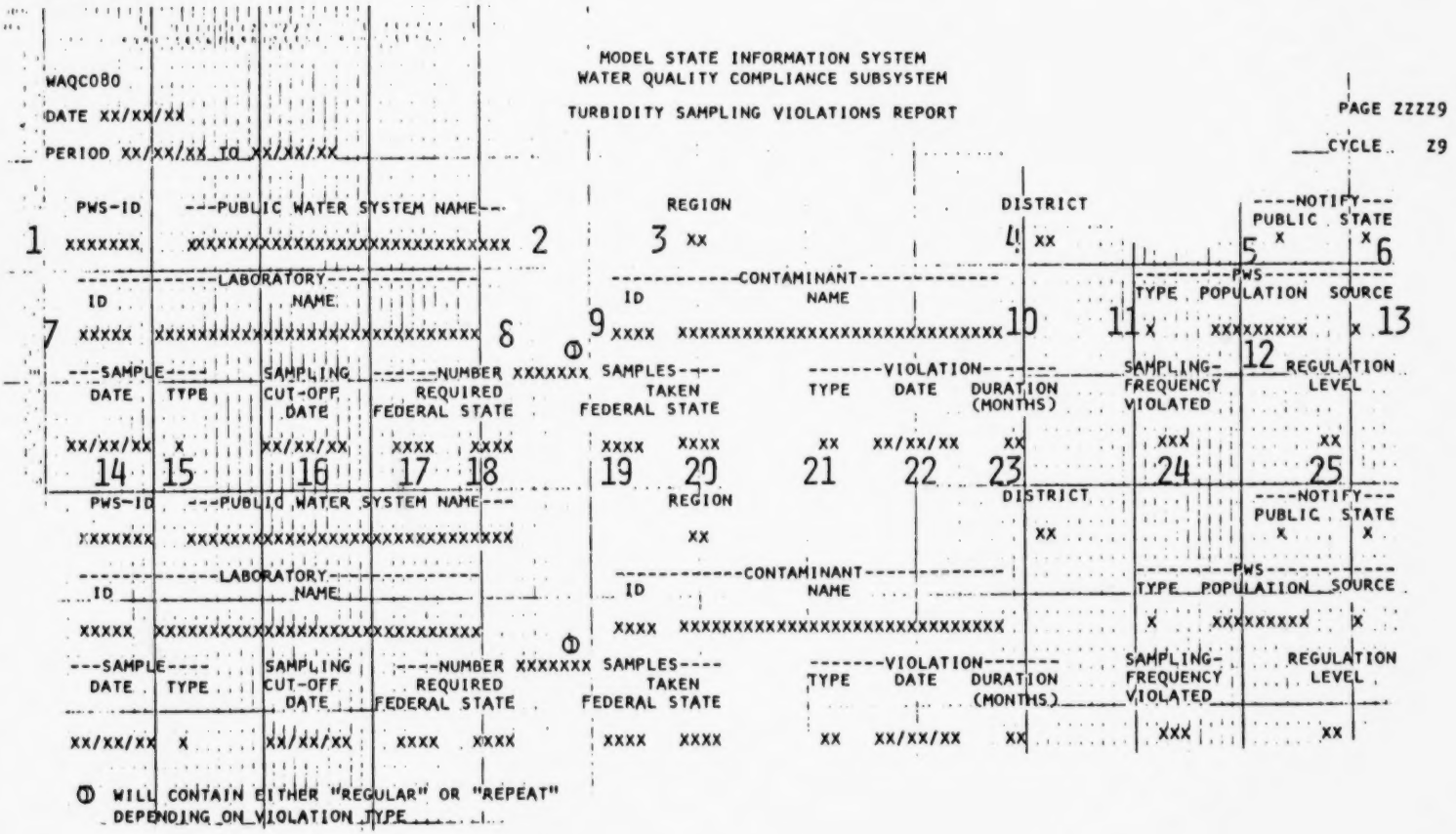
FIELD NO: 23 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 24 DATA ELEMENT NAME: VIF-SAMPLING-FREQ-VIOL
CATALOGUE NO: 347 DESCRIPTION: Sampling frequency which was violated.

FIELD NO: 25 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

WAQC080 1 OF 1
2/11/77

TURBIDITY MCL VIOLATIONS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.312



① WILL CONTAIN EITHER "REGULAR" OR "REPEAT" DEPENDING ON VIOLATION TYPE

EXHIBIT NO: WAQC.312 PAGE 1 OF 3

PROGRAM NO: WAQC080

TITLE: Turbidity Sampling Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIP-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIP-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIP-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIP-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIP-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIP-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIP-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 8 DATA ELEMENT NAME: VIP-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis.

FIELD NO: 9 DATA ELEMENT NAME: VIP-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the Contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIP-CONTAMINANT-ID.

PROGRAM NO: WAQC080

TITLE: Turbidity Sampling Violations Report

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation.

FIELD NO: 16 DATA ELEMENT NAME: VIF-SAMPLING-CUTOFF-DATE
CATALOGUE NO: 342 DESCRIPTION: Date of the sampling cutoff, converted from Julian format.

FIELD NO: 17 DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by Federal regulation if VIF-REGULATION-LEVEL is equal to "FP", otherwise blank.

FIELD NO: 18 DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise blank.

PROGRAM NO: WAQC080

TITLE: Turbidity Sampling Violations Report

FIELD NO: 19
CATALOGUE NO: 337
DATA ELEMENT NAME: VIP-SAMPLES-NUM-TAKEN
DESCRIPTION: Number of samples taken under Federal regulations if VIP-REGULATION-LEVEL is equal to "PP", otherwise blank.

FIELD NO: 20
CATALOGUE NO: 337
DATA ELEMENT NAME: VIP-SAMPLES-NUM-TAKEN
DESCRIPTION: Number of samples taken under State regulations if VIP-REGULATION-LEVEL is equal to "SP", otherwise blank.

FIELD NO: 21
CATALOGUE NO: 343
DATA ELEMENT NAME: VIP-VIOLATION-TYPE
DESCRIPTION: A code identifying the type of violation.

FIELD NO: 22
CATALOGUE NO: 344
DATA ELEMENT NAME: VIP-VIOLATION-DATE
DESCRIPTION: Date the violation occurred, converted from Julian format.

FIELD NO: 23
CATALOGUE NO: 349
DATA ELEMENT NAME: VIP-VIOLATION-DURATION
DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 24
CATALOGUE NO: 347
DATA ELEMENT NAME: VIP-SAMPLING-FREQ-VIOL
DESCRIPTION: Sampling frequency which was violated.

FIELD NO: 25
CATALOGUE NO: 330
DATA ELEMENT NAME: VIP-REGULATION-LEVEL
DESCRIPTION: The regulation level of the violation.

WAQC061 1 OF 1
2/11/77

RADIOLOGICAL SAMPLING VIOLATIONS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.313

WAQC061 MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX RADIOLOGICAL SAMPLING VIOLATIONS REPORT PAGE ZZZZ9

PERIOD XX/XX/XX TO XX/XX/XX

1 PWS-ID	2 PUBLIC WATER SYSTEM NAME	3 REGION	4 DISTRICT	5 NOTIFY PUBLIC	6 NOTIFY STATE
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX	XX	X	X

7 LABORATORY ID	LABORATORY NAME	9 CONTAMINANT ID	CONTAMINANT NAME	10	11 PWS TYPE	PWS POPULATION	13 PWS SOURCE
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		X	XXXXXXXXX	X

8 ①	SAMPLE DATE	SAMPLE TYPE	SAMPLING CUT-OFF DATE	NUMBER XXXXXXX SAMPLES REQUIRED FEDERAL	REQUIRED STATE	TAKEN FEDERAL	TAKEN STATE	VIOLATION TYPE	VIOLATION DATE	VIOLATION DURATION (MONTHS)	12 SAMPLING-FREQUENCY VIOLATED	14 REGULATION LEVEL
	XX/XX/XX	X	XX/XX/XX	XXXX	XXXX	XXXX	XXXX	XX	XX/XX/XX	XX	XXX	XX

15 PWS-ID	16 PUBLIC WATER SYSTEM NAME	17 REGION	18 DISTRICT	19 NOTIFY PUBLIC	20 NOTIFY STATE
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX	XX	X	X

21 LABORATORY ID	LABORATORY NAME	22 CONTAMINANT ID	CONTAMINANT NAME	23	24 PWS TYPE	PWS POPULATION	25 PWS SOURCE
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		X	XXXXXXXXX	X

①	SAMPLE DATE	SAMPLE TYPE	SAMPLING CUT-OFF DATE	NUMBER XXXXXXX SAMPLES REQUIRED FEDERAL	REQUIRED STATE	TAKEN FEDERAL	TAKEN STATE	VIOLATION TYPE	VIOLATION DATE	VIOLATION DURATION (MONTHS)	SAMPLING-FREQUENCY VIOLATED	REGULATION LEVEL
	XX/XX/XX	X	XX/XX/XX	XXXX	XXXX	XXXX	XXXX	XX	XX/XX/XX	XX	XXX	XX

① WILL CONTAIN EITHER "REGULAR" OR "CHECK"
DEPENDING ON VIOLATION TYPE

EXHIBIT NO: WAQC.313 PAGE 1 OF 3

PROGRAM NO: WAQC061

TITLE: Radiological Sampling Violations Report

FIELD NO: 1 DATA ELEMENT NAME: VIF-PWS-ID
CATALOGUE NO: 326 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 2 DATA ELEMENT NAME: VIF-PWS-NAME
CATALOGUE NO: 327 DESCRIPTION: The name of the PWS.

FIELD NO: 3 DATA ELEMENT NAME: VIF-REGION
CATALOGUE NO: 352 DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 4 DATA ELEMENT NAME: VIF-DISTRICT
CATALOGUE NO: 353 DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5 DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC
CATALOGUE NO: 350 DESCRIPTION: A flag telling whether the public notification was given.

FIELD NO: 6 DATA ELEMENT NAME: VIF-NOTIFY-STATE
CATALOGUE NO: 351 DESCRIPTION: A flag telling whether State notification was given.

FIELD NO: 7 DATA ELEMENT NAME: VIF-LAB-ID
CATALOGUE NO: 333 DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 8 DATA ELEMENT NAME: VIF-LAB-NAME
CATALOGUE NO: 334 DESCRIPTION: The name of the laboratory doing the analysis.

FIELD NO: 9 DATA ELEMENT NAME: VIF-CONTAMINANT-ID
CATALOGUE NO: 331 DESCRIPTION: The code identifying the Contaminant in violation.

FIELD NO: 10 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: Name corresponding to VIF-CONTAMINANT-ID.

PROGRAM NO: WAQC061

TITLE: Radiological Sampling Violations Report

FIELD NO: 11 DATA ELEMENT NAME: VIF-PWS-TYPE
CATALOGUE NO: 328 DESCRIPTION: A code identifying the type of PWS.

FIELD NO: 12 DATA ELEMENT NAME: VIF-POPULATION
CATALOGUE NO: 329 DESCRIPTION: Population served by the PWS.

FIELD NO: 13 DATA ELEMENT NAME: VIF-SOURCE-CODE
CATALOGUE NO: 332 DESCRIPTION: A code identifying the source of the water supply for the PWS.

FIELD NO: 14 DATA ELEMENT NAME: VIF-SAMPLE-DATE
CATALOGUE NO: 335 DESCRIPTION: Date of the sample in violation, converted from Julian format.

FIELD NO: 15 DATA ELEMENT NAME: VIF-SAMPLE-TYPE
CATALOGUE NO: 354 DESCRIPTION: A code identifying the type of sample taken in violation.

FIELD NO: 16 DATA ELEMENT NAME: VIF-SAMPLING-CUTOFF-DATE
CATALOGUE NO: 342 DESCRIPTION: Date of the sampling cutoff, converted from Julian format.

FIELD NO: 17 DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by Federal regulation if VIF-REGULATION-LEVEL is equal to "FP", otherwise blank.

FIELD NO: 18 DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED
CATALOGUE NO: 336 DESCRIPTION: Number of samples required by State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise blank.

PROGRAM NO: WAQC061

TITLE: Radiological Sampling Viclations Report

FIELD NO: 19 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under Federal regulations if VIF-REGULATION-LEVEL is equal to "FP", otherwise blank.

FIELD NO: 20 DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN
CATALOGUE NO: 337 DESCRIPTION: Number of samples taken under State regulations if VIF-REGULATION-LEVEL is equal to "SP", otherwise blank.

FIELD NO: 21 DATA ELEMENT NAME: VIF-VIOLATION-TYPE
CATALOGUE NO: 343 DESCRIPTION: A code identifying the type of violation.

FIELD NO: 22 DATA ELEMENT NAME: VIF-VIOLATION-DATE
CATALOGUE NO: 344 DESCRIPTION: Date the violation occurred, converted from Julian format.

FIELD NO: 23 DATA ELEMENT NAME: VIF-VIOLATION-DURATION
CATALOGUE NO: 349 DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 24 DATA ELEMENT NAME: VIF-SAMPLING-FREQ-VIOL
CATALOGUE NO: 347 DESCRIPTION: Sampling frequency which was violated.

FIELD NO: 25 DATA ELEMENT NAME: VIF-REGULATION-LEVEL
CATALOGUE NO: 330 DESCRIPTION: The regulation level of the violation.

WAQC220 1 OF 1
1/4/77

SAF PURGE MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.315

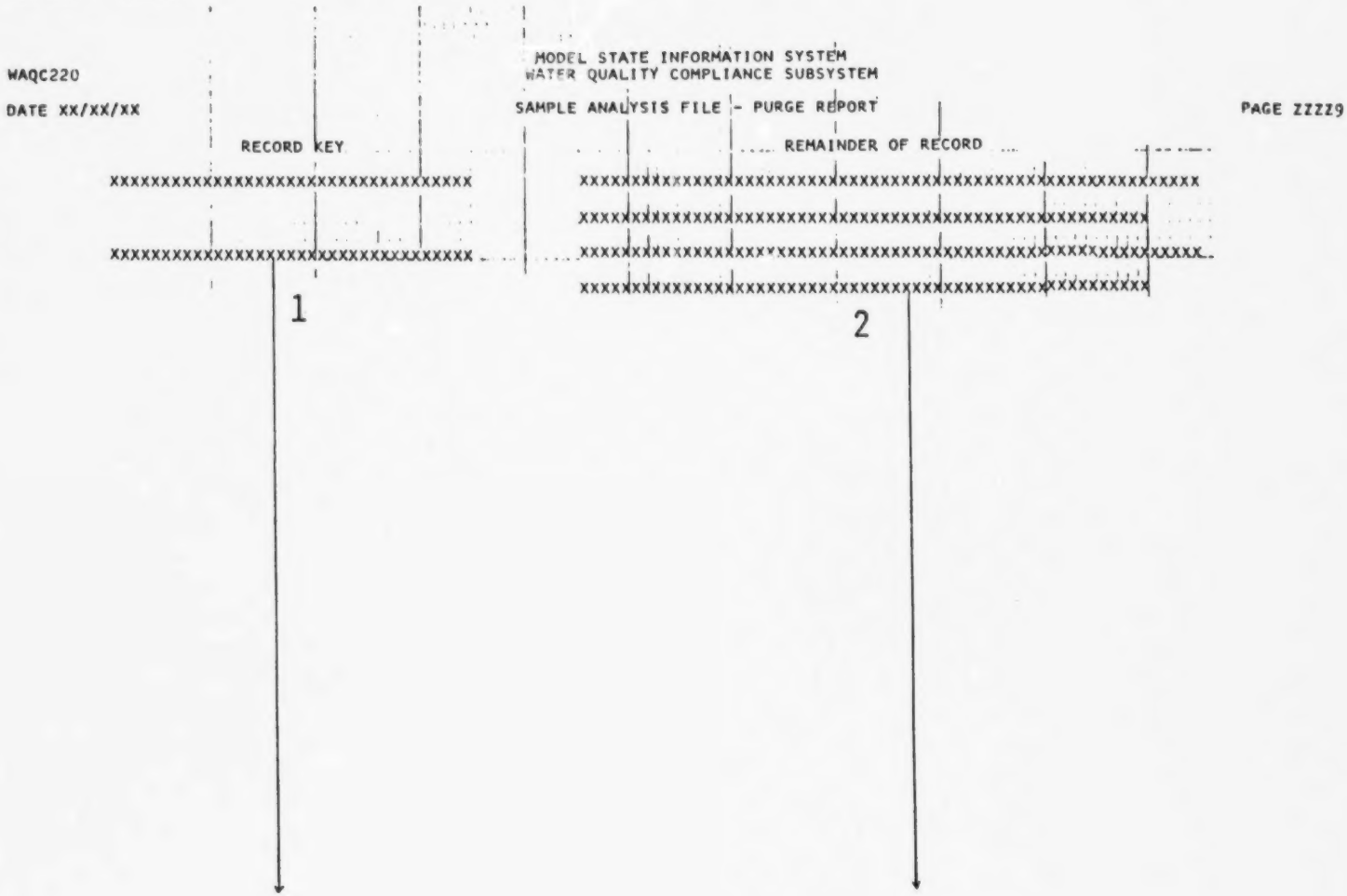


EXHIBIT NO: WAQC.315 PAGE 1 OF 1

PROGRAM NO: WAQC220

TITLE: Sample Analysis Purge Report

FIELD NO: 1
DESCRIPTION: Record key; PWS ID, Contaminant ID, location code, sample type, date, time, and key, and record type.

FIELD NO: 2
DESCRIPTION: Remainder of record image.

WAQC220 1 of 1
1/4/77

SAF Purge Module
SouthWestern Ohio Regional Computer Center
EXHIBIT WAQC.316

WAQC220

MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

SAMPLE ANALYSIS FILE PURGE STATISTICS REPORT

PAGE ZZZZ9

	TOTAL		% RELATIVE TO THE ORIGINAL FILE	
1. NUMBER OF RECORDS ORIGINALLY ON THE FILE	ZZZ,ZZZ,ZZ9	1		
2. NUMBER OF RECORDS PURGED FROM FILE	ZZZ,ZZZ,ZZ9	2	ZZZ9 %	3
3. NUMBER OF RECORDS NOW ON FILE	ZZZ,ZZZ,ZZ9	4	ZZZ9 %	5

EXHIBIT NO: WAQC.316 PAGE 1 OF 1

PROGRAM NO: WAQC220

TITLE: Sample Analysis File Purge Statistics Report

FIELD NO: 1
DESCRIPTION: Accumulated record count of input Sample Analysis File.

FIELD NO: 2
DESCRIPTION: Accumulated record count of records purged from the Sample Analysis File.

FIELD NO: 3
DESCRIPTION: Calculation: number of records purged divided by number of records originally on the file.

FIELD NO: 4
DESCRIPTION: Accumulated record count of records written to the output Sample Analysis File.

FIELD NO: 5
DESCRIPTION: Calculatior: number of records now on the file divided by number of records originally on the file.

Model State Information System
Training Program

Volume VII

USER'S MANUAL

Prepared for the

U.S. Environmental Protection Agency
Office of Water Supply
Washington, D.C.
under GSA Contract No. GS-05S-10458
Task Assignment OWS-77-01

by the

SouthWestern Ohio Regional Computer Center
Cincinnati, Ohio

July, 1977

WAQC140 1 OF 1
3/24/77

CHEMICAL AND RADIOLOGICAL SCHEDULE REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.319

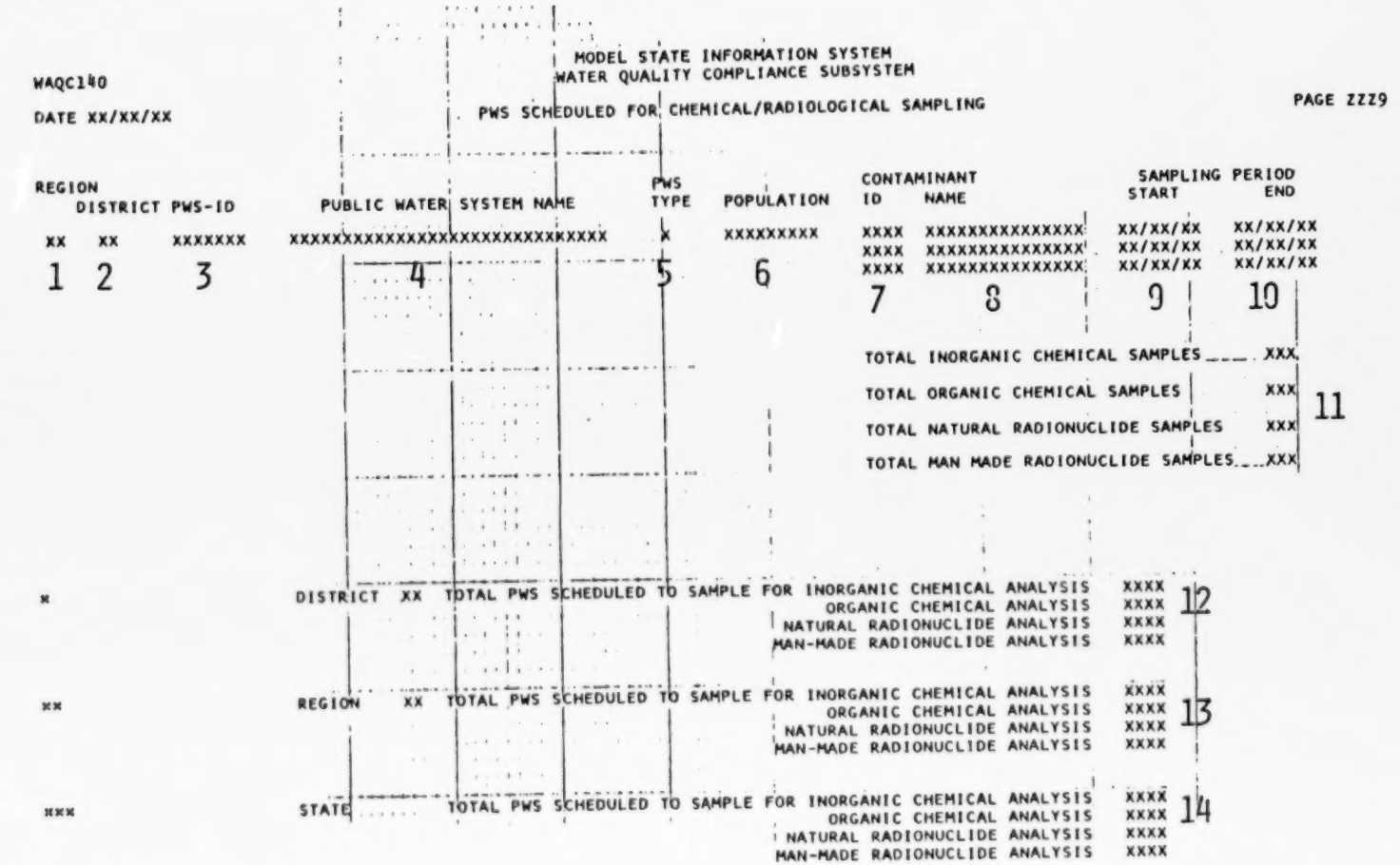


EXHIBIT NO: WAQC.319 PAGE 1 OF 2

PROGRAM NO: WAQC140

TITLE: PWS Scheduled for Chemical/Radiological Sampling

FIELD NO: 1 CATALOGUE NO: 200	DATA ELEMENT NAME: PWF-STATE-REGION DESCRIPTION:	A code identifying the administrative region within the State.
FIELD NO: 2 CATALOGUE NO: 201	DATA ELEMENT NAME: PWF-STATE-DISTRICT DESCRIPTION:	A code identifying an administrative district within a region.
FIELD NO: 3 CATALOGUE NO: 145	DATA ELEMENT NAME: PWF-ID DESCRIPTION:	The number used to identify the Public Water System within the State.
FIELD NO: 4 CATALOGUE NO: 151	DATA ELEMENT NAME: PWF-MAILING-NAME DESCRIPTION:	The mailing name of the PWS.
FIELD NO: 5 CATALOGUE NO: 182	DATA ELEMENT NAME: PWF-PLANT-TYPE DESCRIPTION:	A flag indicating if the PWS is a community or non-community PWS.
FIELD NO: 6 CATALOGUE NO: 183	DATA ELEMENT NAME: PWF-PLANT-POPULATION-SERVED DESCRIPTION:	Total population obtaining water from the PWS.
FIELD NO: 7 CATALOGUE NO: 517	DATA ELEMENT NAME: CSF-CONTAMINANT-ID DESCRIPTION:	Four digit code identifying the type of contaminant.
FIELD NO: 8 CATALOGUE NO: 284	DATA ELEMENT NAME: CVT-DATA-EL-DESC DESCRIPTION:	Name corresponding to CSF-CONTAMINANT-ID.
FIELD NO: 9 CATALOGUE NO: 531	DATA ELEMENT NAME: CSF-SCHED-START-DATE DESCRIPTION:	Scheduled sampling period start date, converted from Julian format.
FIELD NO: 10 CATALOGUE NO: 532	DATA ELEMENT NAME: CSF-SCHED-END-DATE DESCRIPTION:	Scheduled sampling period end date, converted from Julian format.

EXHIBIT NO: WAQC.319 PAGE 2 OF 2

PROGRAM NO: WAQC140

TITLE: PWS Scheduled for Chemical/Radiological Sampling

FIELD NO: 11
DESCRIPTION: An accumulation of the number of samples scheduled for the PWS.

FIELD NO: 12
DESCRIPTION: An accumulation of the number of samples scheduled for the district.

FIELD NO: 13
DESCRIPTION: An accumulation of the number of samples scheduled for the region.

FIELD NO: 14
DESCRIPTION: An accumulation of the number of samples scheduled for the State.

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WAQC125 1 OF 1
2/8/77

VIF SELECTION MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.320

WAQC125 MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX COMPLIANCE SUMMARY REPORT PAGE ZZZZ9

STATE XX 1 REGION XX 2 DISTRICT XX 3 COMPLIANCE CYCLE Z9 4

PWS ID	PUBLIC WATER SYSTEM NAME	PWS TYPE	PWS POPULATION	PWS SOURCE
XXXXXXX 5	XXXXXXXXXXXXXXXXXXXXXXXXXXXX 6	x 7	XXXXXXXXX 8	x 9

VIOLATION ID	VIOLATION DATE	VIOLATION TYPE	VIOLATION DURATION (MONTHS)	CONTAMINANT ID	LABORATORY ID	LABORATORY OWNER	ANALYSIS DATE	ANALYSIS METHOD	ANALYSIS RESULT	MCL VIOLATED	NOTIFY PUBLIC	NOTIFY STATE	REG. LEVEL
10 XXXXX	11 XX/XX/XX	12 XX	XX 13	14 XXXX	15 XXXXX	16 X	17 XX/XX/XX	18 XXX	19 XXXXXXXXXX	20 XXXXXXXXXX	21 X	22 X	23 XX

NUMBER OF SAMPLES REQUIRED	NUMBER OF SAMPLES TAKEN	NUMBER OF SAMPLES IN VIOLATION	SAMPLE DATE	SAMPLE TYPE	SAMPLE KEY	SAMPLE CUTOFF DATE	FREQUENCY VIOLATED	LAST REPORT DATE	LAST REPORT TIME	LAST UPDATE	REMARKS
XXXX 24	XXXX 25	XXXX 26	XX/XX/XX 27	X 28	XXXXXXXXXX 29	XX/XX/XX 30	XXX 31	XX/XX/XX 32	XX 33	XX/XX/XX 34	XXXXXXXXXXXXXXXXXXXXXX 35

* TOTAL VIOLATIONS PER PWS
VIOLATIONS OF STATE REGULATIONS: Z,ZZZ,ZZ9 36 VIOLATIONS OF FEDERAL REGULATIONS: Z,ZZZ,ZZ9 40

** TOTAL VIOLATIONS FOR DISTRICT
VIOLATIONS OF STATE REGULATIONS: Z,ZZZ,ZZ9 37 VIOLATIONS OF FEDERAL REGULATIONS: Z,ZZZ,ZZ9 41

*** TOTAL VIOLATIONS FOR REGION
VIOLATIONS OF STATE REGULATIONS: Z,ZZZ,ZZ9 38 VIOLATIONS OF FEDERAL REGULATIONS: Z,ZZZ,ZZ9 42

VIOLATIONS OF STATE REGULATIONS: Z,ZZZ,ZZ9 39 VIOLATIONS OF FEDERAL REGULATIONS: Z,ZZZ,ZZ9 43

EXHIBIT NO: WAQC.320 PAGE 1 OF 5

PROGRAM NO: WAQC125

TITLE: Compliance Summary Report

FIELD NO: 1 CATALOGUE NO: 270	DATA ELEMENT NAME: PWT-MAILING-STATE DESCRIPTION: The U.S. Postal Service two character abbreviation for the state name.
FIELD NO: 2 CATALOGUE NO: 352	DATA ELEMENT NAME: VIF-REGION DESCRIPTION: A code identifying the administrative region of the state.
FIELD NO: 3 CATALOGUE NO: 353	DATA ELEMENT NAME: VIF-DISTRICT DESCRIPTION: A code identifying the administrative district within a region.
FIELD NO: 4 CATALOGUE NO: 278	DATA ELEMENT NAME: PWT-PLANT-COMPLIANCE-CYCLE DESCRIPTION: The compliance cycle for the PWS.
FIELD NO: 5 CATALOGUE NO: 326	DATA ELEMENT NAME: VIF-PWS-ID DESCRIPTION: The number used to identify the PWS within the state.
FIELD NO: 6 CATALOGUE NO: 327	DATA ELEMENT NAME: VIF-PWS-NAME DESCRIPTION: The name of the PWS.
FIELD NO: 7 CATALOGUE NO: 328	DATA ELEMENT NAME: VIF-PWS-TYPE DESCRIPTION: A code identifying the type of PWS.
FIELD NO: 8 CATALOGUE NO: 329	DATA ELEMENT NAME: VIF-POPULATION DESCRIPTION: Population served by the PWS.
FIELD NO: 9 CATALOGUE NO: 332	DATA ELEMENT NAME: VIF-SOURCE-CODE DESCRIPTION: A code identifying the source of the water supply for the PWS.
FIELD NO: 10 CATALOGUE NO: 806	DATA ELEMENT NAME: VIF-VIOLATION-ID DESCRIPTION: Identification code of the violation.

PROGRAM NO: WAQC125

TITLE: Compliance Summary Report

FIELD NO: 11
CATALOGUE NO: 344
DATA ELEMENT NAME: VIF-VIOLATION-DATE
DESCRIPTION: Date the violation occurred, converted from Julian format.

FIELD NO: 12
CATALOGUE NO: 343
DATA ELEMENT NAME: VIF-VIOLATION-TYPE
DESCRIPTION: A code identifying the type of violation.

FIELD NO: 13
CATALOGUE NO: 349
DATA ELEMENT NAME: VIF-VIOLATION-DURATION
DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 14
CATALOGUE NO: 331
DATA ELEMENT NAME: VIF-CONTAMINANT-ID
DESCRIPTION: The code identifying the contaminant in violation.

FIELD NO: 15
CATALOGUE NO: 333
DATA ELEMENT NAME: VIF-LAB-ID
DESCRIPTION: A code identifying the laboratory doing the analysis.

FIELD NO: 16
CATALOGUE NO: 805
DATA ELEMENT NAME: VIF-LAB-OWNER-TYPE
DESCRIPTION: Code describing type of laboratory owner.

FIELD NO: 17
CATALOGUE NO: 341
DATA ELEMENT NAME: VIF-ANALYSIS-DATE
DESCRIPTION: Date of the analysis in violation, converted from Julian format.

FIELD NO: 18
CATALOGUE NO: 338
DATA ELEMENT NAME: VIF-ANALYSIS-METHOD
DESCRIPTION: A code identifying the analysis method used.

FIELD NO: 19
CATALOGUE NO: 339
DATA ELEMENT NAME: VIF-ANALYSIS-RESULT
DESCRIPTION: The result of the analysis.

FIELD NO: 19
CATALOGUE NO: 340
DATA ELEMENT NAME: VIF-ANALYSIS-DECIMALS
DESCRIPTION: The number of decimal places to be used for VIF-ANALYSIS-RESULT

PROGRAM NO: WAQC125

TITLE: Compliance Summary Report

FIELD NO: 20 CATALOGUE NO: 345	DATA ELEMENT NAME: VIF-MCL-VIOLATED DESCRIPTION: The MCL which was violated.
FIELD NO: 20 CATALOGUE NO: 346	DATA ELEMENT NAME: VIF-MCL-VIOL-DECIMALS DESCRIPTION: The number of decimal places to used for VIF-MCL-VIOLATED.
FIELD NO: 21 CATALOGUE NO: 350	DATA ELEMENT NAME: VIF-NOTIFY-PUBLIC DESCRIPTION: A flag telling whether the public notification was given.
FIELD NO: 22 CATALOGUE NO: 351	DATA ELEMENT NAME: VIF-NOTIFY-STATE DESCRIPTION: A flag telling whether state notification was given.
FIELD NO: 23 CATALOGUE NO: 330	DATA ELEMENT NAME: VIF-REGULATION-LEVEL DESCRIPTION: The regulation level of the violation.
FIELD NO: 24 CATALOGUE NO: 336	DATA ELEMENT NAME: VIF-SAMPLES-NUM-REQUIRED DESCRIPTION: The number of samples to take as required by law.
FIELD NO: 25 CATALOGUE NO: 337	DATA ELEMENT NAME: VIF-SAMPLES-NUM-TAKEN DESCRIPTION: Number of samples taken.
FIELD NO: 26 CATALOGUE NO: 348	DATA ELEMENT NAME: VIF-NUM-SAMPLES-VIOL DESCRIPTION: Number of samples taken in violation.
FIELD NO: 27 CATALOGUE NO: 335	DATA ELEMENT NAME: VIF-SAMPLE-DATE DESCRIPTION: Date of the sample in violation, converted from Julian format.
FIELD NO: 28 CATALOGUE NO: 354	DATA ELEMENT NAME: VIF-SAMPLE-TYPE DESCRIPTION: A code identifying the type of sample taken in violation.

PROGRAM NO: WAQC125

TITLE: Compliance Summary Report

FIELD NO: 29
CATALOGUE NO: 355
DATA ELEMENT NAME: VIF-SAMPLE-KEY
DESCRIPTION: A unique key for each record consisting of the processing date in Julian format and a sequential number of the sample.

FIELD NO: 30
CATALOGUE NO: 342
DATA ELEMENT NAME: VIF-SAMPLING-CUTOFF-DATE
DESCRIPTION: Date of the sampling cutoff, converted from Julian format.

FIELD NO: 31
CATALOGUE NO: 347
DATA ELEMENT NAME: VIF-SAMPLING-FREQ-VIOL
DESCRIPTION: Sampling frequency which was violated.

FIELD NO: 32
CATALOGUE NO: 803
DATA ELEMENT NAME: VIF-DATE-LAST-REPORT
DESCRIPTION: Date of last report, converted from Julian format.

FIELD NO: 33
CATALOGUE NO: 804
DATA ELEMENT NAME: VIF-TIME-SINCE-LAST-REPORT
DESCRIPTION: Time, in months, since last report.

FIELD NO: 34
CATALOGUE NO: 807
DATA ELEMENT NAME: VIF-LAST-UPDATE
DESCRIPTION: Date of last update to this record, converted from Julian format.

FIELD NO: 35
CATALOGUE NO: 808
DATA ELEMENT NAME: VIF-REMARKS
DESCRIPTION: Remarks concerning the violation.

PROGRAM NO: WAQC125

TITLE: Compliance Summary Report

FIELD NO: 36
DESCRIPTION: Accumulation of the number of violations of state regulations per public water system (PWS).

FIELD NO: 37
DESCRIPTION: Accumulation of the number of violations of state regulations per district.

FIELD NO: 38
DESCRIPTION: Accumulation of the number of violations of state regulations per region.

FIELD NO: 39
DESCRIPTION: Accumulation of the number of violations of state regulations within the state.

FIELD NO: 40
DESCRIPTION: Accumulation of the number of violations of federal regulations per district.

FIELD NO: 41
DESCRIPTION: Accumulation of the number of violations of federal regulations per district.

FIELD NO: 42
DESCRIPTION: Accumulation of the number of violations of federal regulations per region.

FIELD NO: 43
DESCRIPTION: Accumulation of the number of violations of federal regulations within the state.

WAQC110 PAGE 1 OF 1
DATE 3/4/77

CHEMICAL ANIALYSES SUMMARY REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.321

WAQC110 MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX SUMMARY OF CHEMICAL ANALYSIS REPORT FROM XX/XX/XX TO XX/XX/XX PAGE ZZZZ9

REGION	DISTRICT	PWS-ID	PUBLIC WATER SYSTEM NAME	PWS TYPE	POPULATION	SOURCE
1 XX	2 XX	3 XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXX	5 X	6 XXXXXXXXX	7 X

SAMPLE KEY	CONTAMINANT ID	CONTAMINANT NAME	SAMPLE TYPE	SAMPLE DATE	LAB ID	ANALYSIS RESULT	ANALYSIS METHOD	NUMBER SAMPLES	VIOLATION STATE	VIOLATION FEDERAL	VIOLATION DURATION
XXXXXXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXX	X	XX/XX/XX	XXXXX	XXXXXXXXXX	XXX	XXXX	XXX	XXX	XXX
XXXXXXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXX	X	XX/XX/XX	XXXXX	XXXXXXXXXX	XXX	XXXX	XXX	XXX	XXX
8	9	4 10	11	12	13	14	15	16	17	18	19

* CONTAMINANT SUMMARY	SAMPLE TYPE	ANALYSIS RESULT LOW	ANALYSIS RESULT AVERAGE	ANALYSIS RESULT HIGH	MCL STATE	MCL FEDERAL	NUMBER SAMPLES	VIOLATION STATE	VIOLATION FEDERAL	VIOLATION LONGEST DURATION
	X	XXXXXXXXXX	XXXXXXXXX	XXXXXXXXXX	XXXXXXXX	XXXXXXXX	XXXX	XXXXXXX	XXXXXXX	XXXX
	X	XXXXXXXXXX	XXXXXXXXX	XXXXXXXXXX	XXXXXXXX	XXXXXXXX	XXXX	XXXXXXX	XXXXXXX	XXXX
20		21	22	23	24	25	26	27	28	29

* NOTE: IF THE CONTAMINANT ID IS NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, ONLY DETAILS ARE TO BE PRINTED; NO CONTAMINANT SUMMARIES WILL BE PRODUCED. CONTAMINANT SUMMARIES ARE TO BE PRODUCED IN THE FOLLOWING ORDER: C - CHECK; D - REGULAR DISTRIBUTION; P - PLANT TAP; R - RAW WATER; S - SPECIAL.

**	TOTAL PWS	TOTAL POPULATION	CHECK SAMPLES	REGULAR SAMPLES	PLANT TAP SAMPLES	RAW WATER SAMPLES	SPECIAL SAMPLES	VIOLATION STATE	VIOLATION FEDERAL	VIOLATION LONGEST DURATION
* TOTAL FOR DISTRICT	ZZZZ9	ZZZ,ZZZ,ZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZ9	ZZZZZ9	ZZZ9
** TOTAL FOR REGION	ZZZZ9	ZZZ,ZZZ,ZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZ9	ZZZZZ9	ZZZ9
*** TOTAL FOR STATE	ZZZZ9	ZZZ,ZZZ,ZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZ9	ZZZZZ9	ZZZ9
	30	31	32	33	34	35	36	37	38	39

** NOTE: IF THE DISTRICT AND THE REGION ARE NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, NO TOTALS ARE TO BE PRODUCED.

NOTE: TO PRODUCE THE REPORT IN THE ABOVE FORMAT, THE "SORT" PROCESSING OPTIONS RECORD MUST BE: 01 - REGION; 02 - DISTRICT; 03 - PWS-ID; AND 04 - CONTAMINANT ID.

EXHIBIT NO: WAQC.321 PAGE 1 OF 5

PROGRAM NO: WAQC110

TITLE: Summary of Chemical Analysis

FIELD NO: 1 CATALOGUE NO: 800	DATA ELEMENT NAME: SAF-R-REGION DESCRIPTION: A code identifying the administrative region of the state.
FIELD NO: 2 CATALOGUE NO: 801	DATA ELEMENT NAME: SAF-R-DISTRICT DESCRIPTION: A code identifying the administrative district of a region.
FIELD NO: 3 CATALOGUE NO: 356	DATA ELEMENT NAME: SAF-PWS-ID DESCRIPTION: The number used to identify the Public Water System (PWS) within the state.
FIELD NO: 4 CATALOGUE NO: 267	DATA ELEMENT NAME: PWT-MAILING-NAME DESCRIPTION: The official name of the PWS.
FIELD NO: 5 CATALOGUE NO: 364	DATA ELEMENT NAME: SAF-PWS-TYPE DESCRIPTION: A flag indicating if this PWS is a community or non-community PWS.
FIELD NO: 6 CATALOGUE NO: 365	DATA ELEMENT NAME: SAF-POPULATION-SERVED DESCRIPTION: Total population obtaining water from the PWS.
FIELD NO: 7 CATALOGUE NO: 366	DATA ELEMENT NAME: SAF-SOURCE-CODE DESCRIPTION: A code indicating the type of source of water for a PWS.
FIELD NO: 8 CATALOGUE NO: 362	DATA ELEMENT NAME: SAF-SAMPLE-KEY DESCRIPTION: A unique key for each record consisting of the processing date in Julian format and a sequential number of the sample

PROGRAM NO: WAQC110

TITLE: Summary of Chemical Analysis

FIELD NO: 9
CATALOGUE NO: 357
DATA ELEMENT NAME: SAF-CONTAMINANT-ID
DESCRIPTION: A code identifying the contaminant being sampled and analyzed.

FIELD NO: 10
CATALOGUE NO: 284
DATA ELEMENT NAME: CVT-DATA-EL-DESC
DESCRIPTION: Name corresponding to SAF-CONTAMINANT-ID.

FIELD NO: 11
CATALOGUE NO: 359
DATA ELEMENT NAME: SAF-SAMPLE-TYPE
DESCRIPTION: A code identifying the type of sample taken.

FIELD NO: 12
CATALOGUE NO: 360
DATA ELEMENT NAME: SAF-SAMPLE-DATE
DESCRIPTION: Date sample was taken, converted from Julian format.

FIELD NO: 13
CATALOGUE NO: 368
DATA ELEMENT NAME: SAF-LAB-ID
DESCRIPTION: A code identifying the laboratory.

FIELD NO: 14
CATALOGUE NO: 370
DATA ELEMENT NAME: SAF-DETL-ANALYSIS-RESULT
DESCRIPTION: The result of the analysis.

FIELD NO: 14
CATALOGUE NO: 371
DATA ELEMENT NAME: SAF-DETL-ANALYSIS-DECIMALS
DESCRIPTION: The number of decimal places to be used for SAF-DETL-ANALYSIS-RESULT.

FIELD NO: 15
CATALOGUE NO: 367
DATA ELEMENT NAME: SAF-ANALYSIS-METHOD
DESCRIPTION: A code identifying the analysis method used.

PROGRAM NO: WAQC110

TITLE: Summary of Chemical Analysis

FIELD NO: 16 CATALOGUE NO: 380	DATA ELEMENT NAME: SAF-ACTUAL-NUM-SAMPLES DESCRIPTION: Number of samples taken for analysis.
FIELD NO: 17 CATALOGUE NO: 393	DATA ELEMENT NAME: SAF-STATE-VIOLATIONS DESCRIPTION: Number of violations found to state regulations.
FIELD NO: 18 CATALOGUE NO: 392	DATA ELEMENT NAME: SAF-FEDERAL-VIOLATIONS DESCRIPTION: Number of violations found to federal regulations.
FIELD NO: 19 CATALOGUE NO: 394	DATA ELEMENT NAME: SAF-VIOLATION-DURATION DESCRIPTION: Number of months that the violation occurred.
FIELD NO: 20 CATALOGUE NO: 359	DATA ELEMENT NAME: SAF-SAMPLE-TYPE DESCRIPTION: A code identifying the type of sample taken.
FIELD NO: 21 CATALOGUE NO: 375	DATA ELEMENT NAME: SAF-SUMM-LOWEST-RESULT DESCRIPTION: Lowest result of the analysis.
FIELD NO: 21 CATALOGUE NO: 376	DATA ELEMENT NAME: SAF-SUMM-LOW-DECIMALS DESCRIPTION: The number of decimal places to be used for SAF-SUMM-LOWEST-RESULT.
FIELD NO: 22 CATALOGUE NO: 377	DATA ELEMENT NAME: SAF-SUMM-MEAN-RESULT DESCRIPTION: The mean average result of the analyses.

PROGRAM NO: WAQC110

TITLE: Summary of Chemical Analysis

FIELD NO: 22
CATALOGUE NO: 378
DATA ELEMENT NAME: SAF-SUMM-MEAN-DECIMALS
DESCRIPTION: The number of decimal places to be used for SAF-SUMM-MEAN-RESULT.

FIELD NO: 23
CATALOGUE NO: 373
DATA ELEMENT NAME: SAF-SUMM-HIGHEST-RESULT
DESCRIPTION: Highest result of the analyses.

FIELD NO: 23
CATALOGUE NO: 374
DATA ELEMENT NAME: SAF-SUMM-HIGH-DECIMALS
DESCRIPTION: The number of decimal places used for SAF-SUMM-HIGHEST-RESULT.

FIELD NO: 24
CATALOGUE NO: 810
DATA ELEMENT NAME: SAF-MCL-VIOL-S-VALUE
DESCRIPTION: MCL in violation under state regulations.

FIELD NO: 24
CATALOGUE NO: 811
DATA ELEMENT NAME: SAF-MCL-VIOL-S-DECIMALS
DESCRIPTION: The number of decimal places used for SAF-MCL-VIOL-S-VALUE.

FIELD NO: 25
CATALOGUE NO: 398
DATA ELEMENT NAME: SAF-MCL-VIOL-F-VALUE
DESCRIPTION: MCL in violation under federal regulations.

FIELD NO: 25
CATALOGUE NO: 802
DATA ELEMENT NAME: SAF-MCL-VIOL-F-DECIMALS
DESCRIPTION: The number of decimal places used for SAF-MCL-VIOL-F-VALUE.

FIELD NO: 26
DESCRIPTION: Accumulation of number of samples taken.

FIELD NO: 27
DESCRIPTION: Accumulation of the number of state violations.

FIELD NO: 28
DESCRIPTION: Accumulation of the number of federal violations.

PROGRAM NO: WAQC110

TITLE: Summary of Chemical Analysis

FIELD NO: 29
DESCRIPTION: The longest duration, in months, of those samples taken.

FIELD NO: 30
DESCRIPTION: Accumulation of the number of PWS's per district, region and state.

FIELD NO: 31
DESCRIPTION: Accumulation of the population served by all the PWS's per district, region and state.

FIELD NO: 32
DESCRIPTION: Accumulation of the number of check samples taken per district, region and state.

FIELD NO: 33
DESCRIPTION: Accumulation of the number of regular samples taken per district, region and state.

FIELD NO: 34
DESCRIPTION: Accumulation of the number of tap samples taken per district, region and state.

FIELD NO: 35
DESCRIPTION: Accumulation of the number of raw water samples taken per district, region and state.

FIELD NO: 36
DESCRIPTION: Accumulation of the number of special samples taken per district, region and state.

FIELD NO: 37
DESCRIPTION: Accumulation of the number of violations to state regulations.

FIELD NO: 38
DESCRIPTION: Accumulation of the number of violations to federal regulations.

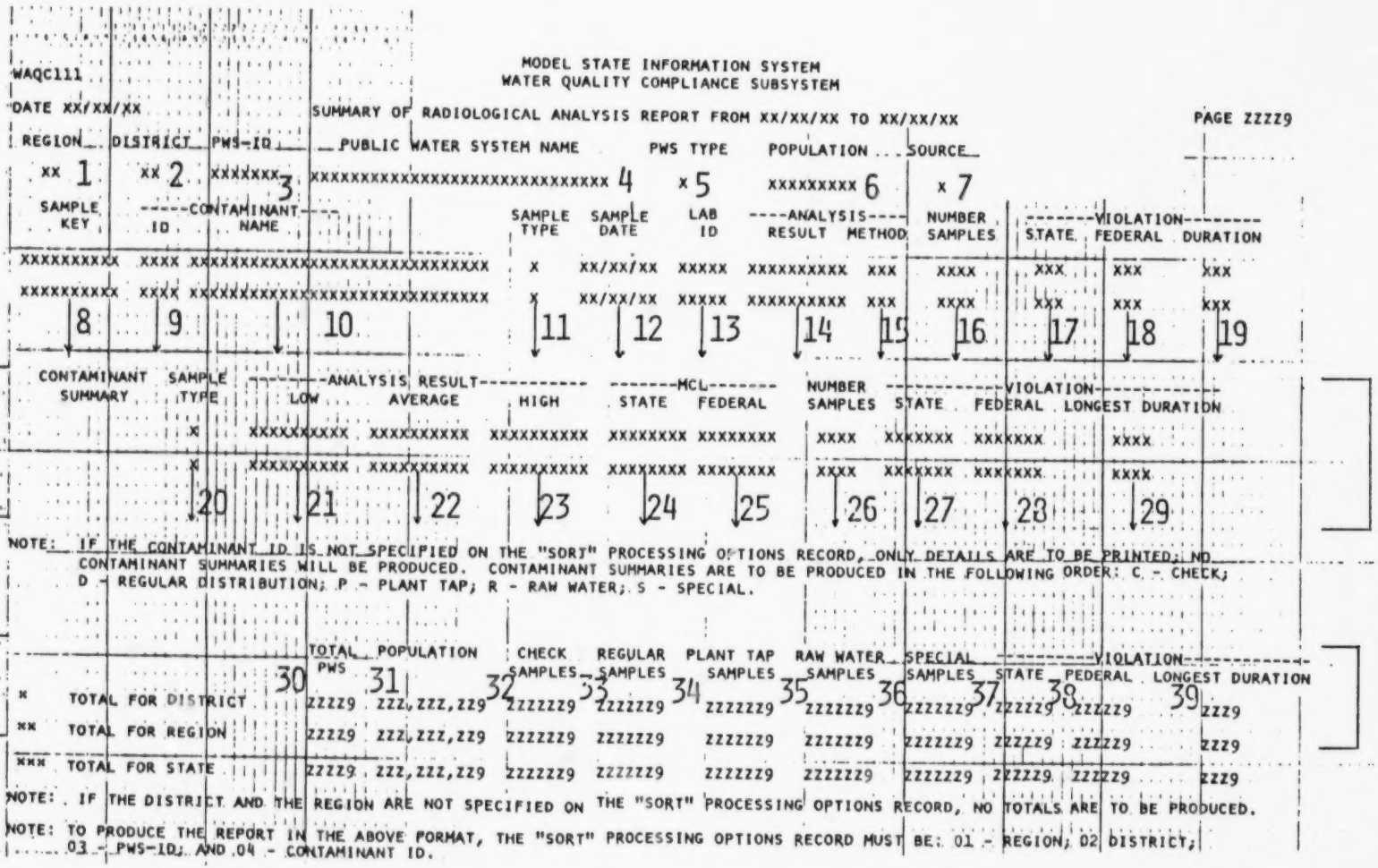
FIELD NO: 39
DESCRIPTION: The longest duration of a violation among those violations accumulated.

WAQC111 1 OF 1
3/4/77

RADIOLOGICAL ANALYSES SUMMARY REPORT MODULE

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT WAQC:322



WAQC111 MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX SUMMARY OF RADIOLOGICAL ANALYSIS REPORT FROM XX/XX/XX TO XX/XX/XX PAGE ZZZZ9

REGION 1 DISTRICT 2 PWS-ID 3 PUBLIC WATER SYSTEM NAME 4 PWS TYPE 5 POPULATION 6 SOURCE 7

SAMPLE KEY	CONTAMINANT ID	CONTAMINANT NAME	SAMPLE TYPE	SAMPLE DATE	LAB ID	ANALYSIS RESULT	ANALYSIS METHOD	NUMBER SAMPLES	VIOLATION STATE	VIOLATION FEDERAL	VIOLATION DURATION
XXXXXXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	X	XX/XX/XX	XXXXX	XXXXXXXXXX	XXX	XXXX	XXX	XXX	XXX
XXXXXXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	X	XX/XX/XX	XXXXX	XXXXXXXXXX	XXX	XXXX	XXX	XXX	XXX

8 9 10 11 12 13 14 15 16 17 18 19

CONTAMINANT SUMMARY	SAMPLE TYPE	ANALYSIS RESULT LOW	ANALYSIS RESULT AVERAGE	ANALYSIS RESULT HIGH	MCL STATE	MCL FEDERAL	NUMBER SAMPLES	VIOLATION STATE	VIOLATION FEDERAL	VIOLATION LONGEST DURATION
	X	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXX	XXXXXXXX	XXXX	XXXXXX	XXXXXX	XXXX
	X	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXX	XXXXXXXX	XXXX	XXXXXX	XXXXXX	XXXX

20 21 22 23 24 25 26 27 28 29

* NOTE: IF THE CONTAMINANT ID IS NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, ONLY DETAILS ARE TO BE PRINTED; NO CONTAMINANT SUMMARIES WILL BE PRODUCED. CONTAMINANT SUMMARIES ARE TO BE PRODUCED IN THE FOLLOWING ORDER: C - CHECK; D - REGULAR DISTRIBUTION; P - PLANT TAP; R - RAW WATER; S - SPECIAL.

		TOTAL PWS	POPULATION	CHECK SAMPLES	REGULAR SAMPLES	PLANT TAP SAMPLES	RAW WATER SAMPLES	SPECIAL SAMPLES	VIOLATION STATE	VIOLATION FEDERAL	VIOLATION LONGEST DURATION
*	TOTAL FOR DISTRICT	ZZZZ9	ZZZ,ZZZ,ZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZ9	ZZZZZ9	ZZZ9
**	TOTAL FOR REGION	ZZZZ9	ZZZ,ZZZ,ZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZ9	ZZZZZ9	ZZZ9
***	TOTAL FOR STATE	ZZZZ9	ZZZ,ZZZ,ZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZ9	ZZZZZ9	ZZZ9

30 31 32 33 34 35 36 37 38 39

** NOTE: IF THE DISTRICT AND THE REGION ARE NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, NO TOTALS ARE TO BE PRODUCED.

NOTE: TO PRODUCE THE REPORT IN THE ABOVE FORMAT, THE "SORT" PROCESSING OPTIONS RECORD MUST BE: 01 - REGION; 02 DISTRICT; 03 - PWS-ID; AND 04 - CONTAMINANT ID.

EXHIBIT NO: WAQC.322 PAGE 1 OF 5

PROGRAM NO: WAQC111

TITLE: Summary of Radiological Analysis

FIELD NO: 1	DATA ELEMENT NAME: SAF-R-REGION
CATALOGUE NO: 800	DESCRIPTION: A code identifying the administrative region of the state.
FIELD NO: 2	DATA ELEMENT NAME: SAF-R-DISTRICT
CATALOGUE NO: 801	DESCRIPTION: A code identifying the administrative district of a region.
FIELD NO: 3	DATA ELEMENT NAME: SAF-PWS-ID
CATALOGUE NO: 356	DESCRIPTION: The number used to identity the Public Water System (PWS) within the state.
FIELD NO: 4	DATA ELEMENT NAME: PWT-MAILING-NAME
CATALOGUE NO: 267	DESCRIPTION: The official name of the PWS.
FIELD NO: 5	DATA ELEMENT NAME: SAF-PWS-TYPE
CATALOGUE NO: 364	DESCRIPTION: A flag indicating if this PWS is a community or non-community PWS.
FIELD NO: 6	DATA ELEMENT NAME: SAF-POPULATION-SERVED
CATALOGUE NO: 365	DESCRIPTION: Total population obtaining water from the PWS.
FIELD NO: 7	DATA ELEMENT NAME: SAF-SOURCE-CODE
CATALOGUE NO: 366	DESCRIPTION: A code indicating the type of source of water for a PWS.
FIELD NO: 8	DATA ELEMENT NAME: SAF-SAMPLE-KEY
CATALOGUE NO: 362	DESCRIPTION: A unique key for each record consisting of the processing date in Julian format and a sequential number of the sample.

PROGRAM NO: WAQC111

TITLE: Summary of Radiological Analysis

FIELD NO: 9
CATALOGUE NO: 357
DATA ELEMENT NAME: SAF-CONTAMINANT-ID
DESCRIPTION: A code identifying the contaminant being sampled and analyzed.

FIELD NO: 10
CATALOGUE NO: 284
DATA ELEMENT NAME: CVT-DATA-EL-DESC
DESCRIPTION: Name corresponding to SAF-CONTAMINANT-ID.

FIELD NO: 11
CATALOGUE NO: 359
DATA ELEMENT NAME: SAF-SAMPLE-TYPE
DESCRIPTION: A code identifying the type of sample taken.

FIELD NO: 12
CATALOGUE NO: 360
DATA ELEMENT NAME: SAF-SAMPLE-DATE
DESCRIPTION: Date sample was taken, converted from Julian format.

FIELD NO: 13
CATALOGUE NO: 368
DATA ELEMENT NAME: SAF-LAB-ID
DESCRIPTION: A code identifying the laboratory.

FIELD NO: 14
CATALOGUE NO: 370
DATA ELEMENT NAME: SAF-DETL-ANALYSIS-RESULT
DESCRIPTION: The result of the analysis.

FIELD NO: 14
CATALOGUE NO: 371
DATA ELEMENT NAME: SAF-DETL-ANALYSIS-DECIMALS
DESCRIPTION: The number of decimal places to be used for SAF-DETL-ANALYSIS-RESULT.

FIELD NO: 15
CATALOGUE NO: 367
DATA ELEMENT NAME: SAF-ANALYSIS-METHOD
DESCRIPTION: A code identifying the analysis method used.

PROGRAM NO: WAQC111

TITLE: Summary of Radiological Analysis

FIELD NO: 16
CATALOGUE NO: 380
DATA ELEMENT NAME: SAF-ACTUAL-NUM-SAMPLES
DESCRIPTION: Number of samples taken for analysis.

FIELD NO: 17
CATALOGUE NO: 393
DATA ELEMENT NAME: SAF-STATE-VIOLATIONS
DESCRIPTION: Number of violations found to state regulations.

FIELD NO: 18
CATALOGUE NO: 392
DATA ELEMENT NAME: SAF-FEDERAL-VIOLATIONS
DESCRIPTION: Number of violations found to federal regulations.

FIELD NO: 19
CATALOGUE NO: 394
DATA ELEMENT NAME: SAF-VIOLATION-DURATION
DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 20
CATALOGUE NO: 359
DATA ELEMENT NAME: SAF-SAMPLE-TYPE
DESCRIPTION: A code identifying the type of sample taken.

FIELD NO: 21
CATALOGUE NO: 375
DATA ELEMENT NAME: SAF-SUMM-LOWEST-RESULT
DESCRIPTION: Lowest result of the analysis.

FIELD NO: 21
CATALOGUE NO: 376
DATA ELEMENT NAME: SAF-SUMM-LOW-DECIMALS
DESCRIPTION: The number of decimal places to be used for SAF-SUMM-LOWEST-RESULT.

FIELD NO: 22
CATALOGUE NO: 377
DATA ELEMENT NAME: SAF-SUMM-MEAN-RESULT
DESCRIPTION: The mean average result of the analyses.

PROGRAM NO: WAQC111

TITLE: Summary of Radiological Analysis

FIELD NO: 22
CATALOGUE NO: 378
DATA ELEMENT NAME: SAF-SUMM-MEAN-DECIMALS
DESCRIPTION: The number of decimal places to be used for SAF-SUMM-MEAN-RESULT.

FIELD NO: 23
CATALOGUE NO: 373
DATA ELEMENT NAME: SAF-SUMM-HIGHEST-RESULT
DESCRIPTION: Highest result of the analyses.

FIELD NO: 23
CATALOGUE NO: 374
DATA ELEMENT NAME: SAF-SUMM-HIGH-DECIMALS
DESCRIPTION: The number of decimal places used for SAF-SUMM-HIGHEST-RESULT.

FIELD NO: 24
CATALOGUE NO: 810
DATA ELEMENT NAME: SAF-MCL-VIOL-S-VALUE
DESCRIPTION: MCL in violation under state regulations.

FIELD NO: 24
CATALCGUE NO: 811
DATA ELEMENT NAME: SAF-MCL-VIOL-S-DECIMALS
DESCRIPTION: The number of decimal places used for SAF-MCL-VIOL-S-VALUE.

FIELD NO: 25
CATALOGUE NO: 398
DATA ELEMENT NAME: SAF-MCL-VIOL-F-VALUE
DESCRIPTION: MCL in violation under federal regulations.

FIELD NO: 25
CATALCGUE NO: 802
DATA ELEMENT NAME: SAF-MCL-VIOL-F-DECIMALS
DESCRIPTION: The number of decimal places used for SAF-MCL-VIOL-F-VALUE.

FIELD NO: 26
DESCRIPTION: Accumulation of number of samples taken.

FIELD NO: 27
DESCRIPTION: Accumulation of the number of state violations.

FIELD NO: 28
DESCRIPTICN: Accumulation of the number of federal violations.

PROGRAM NO: WAQC111

TITLE: Summary of Radiological Analysis

FIELD NO: 29
DESCRIPTION: The longest duration, in months, of those samples taken.

FIELD NO: 30
DESCRIPTION: Accumulation of the number of PWS's per district, region and state.

FIELD NO: 31
DESCRIPTION: Accumulation of the population served by all the PWS's per district, region and state.

FIELD NO: 32
DESCRIPTION: Accumulation of the number of check samples taken per district, region and state.

FIELD NO: 33
DESCRIPTION: Accumulation of the number of regular samples taken per district, region and state.

FIELD NO: 34
DESCRIPTION: Accumulation of the number of tap samples taken per district, region and state.

FIELD NO: 35
DESCRIPTION: Accumulation of the number of raw water samples taken per district, region and state.

FIELD NO: 36
DESCRIPTION: Accumulation of the number of special samples taken per district, region and state.

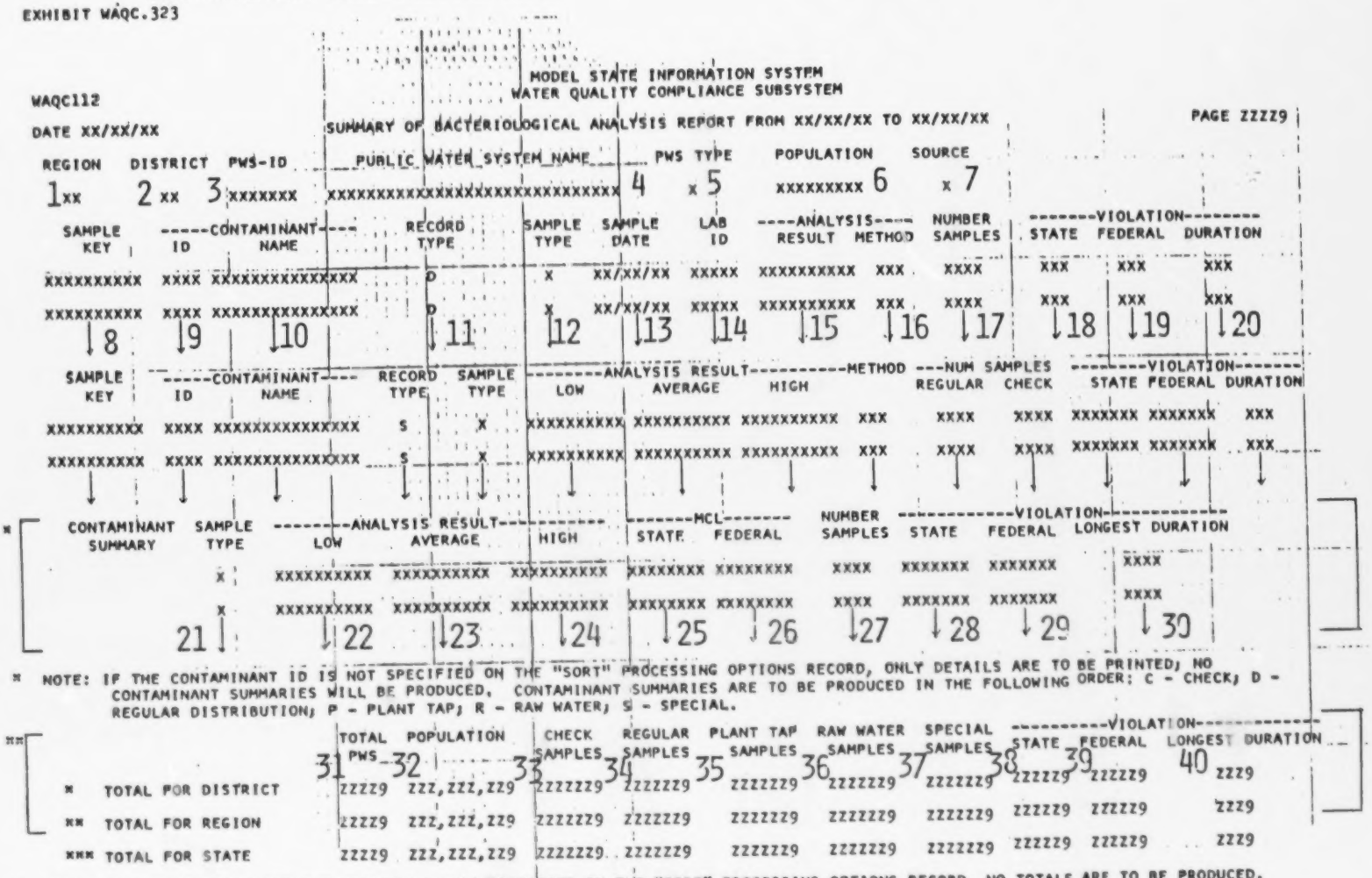
FIELD NO: 37
DESCRIPTION: Accumulation of the number of violations to state regulations.

FIELD NO: 38
DESCRIPTION: Accumulation of the number of violations to federal regulations.

FIELD NO: 39
DESCRIPTION: The longest duration of a violation among those violations accumulated.

WAQC112 PAGE 1 OF 1
DATE 3/4/77

BACTERIOLOGICAL SUMMARY ANALYSIS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.323



* NOTE: IF THE CONTAMINANT ID IS NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, ONLY DETAILS ARE TO BE PRINTED; NO CONTAMINANT SUMMARIES WILL BE PRODUCED. CONTAMINANT SUMMARIES ARE TO BE PRODUCED IN THE FOLLOWING ORDER: C - CHECK; D - REGULAR DISTRIBUTION; P - PLANT TAP; R - RAW WATER; S - SPECIAL.

	TOTAL PWS 31	POPULATION 32	CHECK SAMPLES 33	REGULAR SAMPLES 34	PLANT TAP SAMPLES 35	RAW WATER SAMPLES 36	SPECIAL SAMPLES 37	VIOLATION STATE 38	VIOLATION FEDERAL 39	VIOLATION LONGEST DURATION 40
* TOTAL FOR DISTRICT	ZZZZ9	ZZZ,ZZZ,ZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZ9	ZZZZZ9	ZZZ9
** TOTAL FOR REGION	ZZZZ9	ZZZ,ZZZ,ZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZ9	ZZZZZ9	ZZZ9
*** TOTAL FOR STATE	ZZZZ9	ZZZ,ZZZ,ZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZ9	ZZZZZ9	ZZZ9

** NOTE: IF THE DISTRICT AND THE REGION ARE NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, NO TOTALS ARE TO BE PRODUCED.
NOTE: TO PRODUCE THE REPORT IN THE ABOVE FORMAT, THE "SORT" PROCESSING OPTIONS RECORD MUST BE: 01 - REGION; 02 - DISTRICT; 03 - PWS-ID; AND 04 - CONTAMINANT ID.

EXHIBIT NO: WAQC.323 PAGE 1 OF 5

PROGRAM NO: WAQC112

TITLE: Summary of Bacteriological Analysis

FIELD NO: 1
CATALOGUE NO: 800
DATA ELEMENT NAME: SAF-R-REGION
DESCRIPTION: A code identifying the administrative region of the state.

FIELD NO: 2
CATALOGUE NO: 801
DATA ELEMENT NAME: SAF-R-DISTRICT
DESCRIPTION: A code identifying the administrative district of a region.

FIELD NO: 3
CATALOGUE NO: 356
DATA ELEMENT NAME: SAF-PWS-ID
DESCRIPTION: The number used to identify the Public Water System (PWS) within the state.

FIELD NO: 4
CATALOGUE NO: 267
DATA ELEMENT NAME: PWT-MAILING-NAME
DESCRIPTION: The official name of the PWS.

FIELD NO: 5
CATALOGUE NO: 364
DATA ELEMENT NAME: SAF-PWS-TYPE
DESCRIPTION: A flag indicating if this PWS is a community or non-community PWS.

FIELD NO: 6
CATALOGUE NO: 365
DATA ELEMENT NAME: SAF-POPULATION-SERVED
DESCRIPTION: Total population obtaining water from the PWS.

FIELD NO: 7
CATALOGUE NO: 366
DATA ELEMENT NAME: SAF-SOURCE-CODE
DESCRIPTION: A code indicating the type of source of water for a PWS.

FIELD NO: 8
CATALOGUE NO: 362
DATA ELEMENT NAME: SAF-SAMPLE-KEY
DESCRIPTION: A unique key for each record consisting of the processing date in Julian format and a sequential number of the sample.

PROGRAM NO: WAQC112

TITLE: Summary of Bacteriological Analysis

FIELD NO: 9
CATALOGUE NO: 357
DATA ELEMENT NAME: SAF-CONTAMINANT-ID
DESCRIPTION: A code identifying the contaminant being sampled and analyzed.

FIELD NO: 10
CATALOGUE NO: 284
DATA ELEMENT NAME: CVT-DATA-EL-DESC
DESCRIPTION: Name corresponding to SAF-CONTAMINANT-ID.

FIELD NO: 11
DESCRIPTION: pre-printed record type.

FIELD NO: 12
CATALOGUE NO: 359
DATA ELEMENT NAME: SAF-SAMPLE-TYPE
DESCRIPTION: A code identifying the type of sample taken.

FIELD NO: 13
CATALOGUE NO: 360
DATA ELEMENT NAME: SAF-SAMPLE-DATE
DESCRIPTION: Date sample was taken, converted from Julian format.

FIELD NO: 14
CATALOGUE NO: 368
DATA ELEMENT NAME: SAF-LAB-ID
DESCRIPTION: A code identifying the laboratory.

FIELD NO: 15
CATALOGUE NO: 370
DATA ELEMENT NAME: SAF-DETL-ANALYSIS-RESULT
DESCRIPTION: The result of the analysis.

FIELD NO: 15
CATALOGUE NO: 371
DATA ELEMENT NAME: SAF-DETL-ANALYSIS-DECIMALS
DESCRIPTION: The number of decimal places to be used for SAF-DETL-ANALYSIS-RESULT.

FIELD NO: 16
CATALOGUE NO: 367
DATA ELEMENT NAME: SAF-ANALYSIS-METHOD
DESCRIPTION: A code identifying the analysis method used.

PROGRAM NO: WAQC112

TITLE: Summary of Bacteriological Analysis

FIELD NO: 17
CATALOGUE NO: 380
DATA ELEMENT NAME: SAF-ACTUAL-NUM-SAMPLES
DESCRIPTION: Number of samples taken for analysis.

FIELD NO: 18
CATALOGUE NO: 393
DATA ELEMENT NAME: SAF-STATE-VIOLATIONS
DESCRIPTION: Number of violations found to state regulations.

FIELD NO: 19
CATALOGUE NO: 392
DATA ELEMENT NAME: SAF-FEDERAL-VIOLATIONS
DESCRIPTION: Number of violations found to federal regulations.

FIELD NO: 20
CATALOGUE NO: 394
DATA ELEMENT NAME: SAF-VIOLATION-DURATION
DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 21
CATALOGUE NO: 359
DATA ELEMENT NAME: SAF-SAMPLE-TYPE
DESCRIPTION: A code identifying the type of sample taken.

FIELD NO: 22
CATALOGUE NO: 375
DATA ELEMENT NAME: SAF-SUMM-LOWEST-RESULT
DESCRIPTION: Lowest result of the analysis.

FIELD NO: 22
CATALOGUE NO: 376
DATA ELEMENT NAME: SAF-SUMM-LOW-DECIMALS
DESCRIPTION: The number of decimal places to be used for SAF-SUMM-LOWEST-RESULT.

FIELD NO: 23
CATALOGUE NO: 377
DATA ELEMENT NAME: SAF-SUMM-MEAN-RESULT
DESCRIPTION: The mean average result of the analyses.

PROGRAM NO: WAQC112

TITLE: Summary of Bacteriological Analysis

FIELD NO: 23
CATALOGUE NO: 378
DATA ELEMENT NAME: SAF-SUMM-MEAN-DECIMALS
DESCRIPTION: The number of decimal places to be used for SAF-SUMM-MEAN-RESULT.

FIELD NO: 24
CATALOGUE NO: 373
DATA ELEMENT NAME: SAF-SUMM-HIGHEST-RESULT
DESCRIPTION: Highest result of the analyses.

FIELD NO: 24
CATALOGUE NO: 374
DATA ELEMENT NAME: SAF-SUMM-HIGH-DECIMALS
DESCRIPTION: The number of decimal places used for SAF-SUMM-HIGHEST-RESULT.

FIELD NO: 25
CATALOGUE NO: 810
DATA ELEMENT NAME: SAF-MCL-VIOL-S-VALUE
DESCRIPTION: MCL in violation under state regulations.

FIELD NO: 25
CATALOGUE NO: 811
DATA ELEMENT NAME: SAF-MCL-VIOL-S-DECIMALS
DESCRIPTION: The number of decimal places used for SAF-MCL-VIOL-S-VALUE.

FIELD NO: 26
CATALOGUE NO: 398
DATA ELEMENT NAME: SAF-MCL-VIOL-F-VALUE
DESCRIPTION: MCL in violation under federal regulations.

FIELD NO: 26
CATALOGUE NO: 802
DATA ELEMENT NAME: SAF-MCL-VIOL-F-DECIMALS
DESCRIPTION: The number of decimal places used for SAF-MCL-VIOL-F-VALUE.

FIELD NO: 27
DESCRIPTION: Accumulation of number of samples taken.

FIELD NO: 28
DESCRIPTION: Accumulation of the number of state violations.

FIELD NO: 29
DESCRIPTION: Accumulation of the number of federal violations.

PROGRAM NC: WAQC112

TITLE: Summary of Bacteriological Analysis

FIELD NO: 30
DESCRIPTICN: The longest duration, in months, of those samples taken.

FIELD NO: 31
DESCRIPTION: Accumulation of the number of PWS's per district, region and state.

FIELD NO: 32
DESCRIPTICN: Accumulation of the population served by all the PWS's per distric, region and state.

FIELD NO: 33
DESCRIPTICN: Accumulation of the number of check samples taken per district, region and state.

FIELD NO: 33
DESCRIPTICN: Accumulation of the number of regular samples taken per district, region and state.

FIELD NO: 35
DESCRIPTION: Accumulation of the number of tap samples taken per district, region and state.

FIELD NO: 36
DESCRIPTICN: Accumulation of the number of raw water samples taken per district, region and state.

FIELD NO: 37
DESCRIPTION: Accumulation of the number of special samples taken per district, region and state.

FIELD NO: 38
DESCRIPTICN: Accumulation of the number of violations to state regulaticns.

FIELD NO: 39
DESCRIPTION: Accumulation of the number of violations to federal regulaticns.

FIELD NO: 40
DESCRIPTICN: The longest duration of a violation among those violations accumulated.

WAQC113 1 OF 1
3/4/77

TURBIDITY SUMMARY ANALYSIS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.324

MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

WAQC113 DATE XX/XX/XX SUMMARY OF TURBIDITY ANALYST REPORT FROM XX/XX/XX TO XX/XX/XX PAGE ZZZZ9

REGION	DISTRICT	PWS-ID	PUBLIC WATER SYSTEM NAME	PWS TYPE	POPULATION	SOURCE
1 XX	2 XX	3 XXXXXXX	4 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	5 X	6 XXXXXXXXX	7 X

SAMPLE KEY	CONTAMINANT ID	CONTAMINANT NAME	RECORD TYPE	SAMPLE TYPE	SAMPLE DATE	LAB ID	ANALYSIS RESULT	ANALYSIS METHOD	NUMBER SAMPLES	VIOLATION STATE	VIOLATION FEDERAL	VIOLATION DURATION
XXXXXXXXXX	XXXX	XXXXXXXXXXXXXXX	D	X	XX/XX/XX	XXXXX	XXXXXXXXXX	XXX	XXXX	XXX	XXX	XXX
XXXXXXXXXX	XXXX	XXXXXXXXXXXXXXX	D	X	XX/XX/XX	XXXXX	XXXXXXXXXX	XXX	XXXX	XXX	XXX	XXX
8	9	10	11	12	13	14	15	16	17	18	19	20

SAMPLE KEY	CONTAMINANT ID	CONTAMINANT NAME	RECORD TYPE	SAMPLE TYPE	ANALYSIS RESULT LOW	ANALYSIS RESULT AVERAGE	ANALYSIS RESULT HIGH	METHOD	NUM SAMPLES REGULAR	NUM SAMPLES CHECK	VIOLATION STATE	VIOLATION FEDERAL	VIOLATION DURATION
XXXXXXXXXX	XXXX	XXXXXXXXXXXXXXX	S	X	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXX	XXXX	XXXX	XXXXXXX	XXXXXXX	XXX
XXXXXXXXXX	XXXX	XXXXXXXXXXXXXXX	S	X	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXX	XXXX	XXXX	XXXXXXX	XXXXXXX	XXX

*

CONTAMINANT SUMMARY	SAMPLE TYPE	ANALYSIS RESULT LOW	ANALYSIS RESULT AVERAGE	ANALYSIS RESULT HIGH	MCL STATE	MCL FEDERAL	NUMBER SAMPLES	VIOLATION STATE	VIOLATION FEDERAL	VIOLATION LONGEST DURATION
	X	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXX	XXXXXXXX	XXXX	XXXXXXX	XXXXXXX	XXXX
	X	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXX	XXXXXXXX	XXXX	XXXXXXX	XXXXXXX	XXXX
	21	22	23	24	25	26	27	28	29	30

* NOTE: IF THE CONTAMINANT ID IS NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, ONLY DETAILS ARE TO BE PRINTED; NO CONTAMINANT SUMMARIES WILL BE PRODUCED. CONTAMINANT SUMMARIES ARE TO BE PRODUCED IN THE FOLLOWING ORDER: C - CHECK; D - REGULAR DISTRIBUTION; P - PLANT TAP; R - RAW WATER; S - SPECIAL.

**

		TOTAL PWS	POPULATION	CHECK SAMPLES	REGULAR SAMPLES	PLANT TAP SAMPLES	RAW WATER SAMPLES	SPECIAL SAMPLES	VIOLATION STATE	VIOLATION FEDERAL	VIOLATION LONGEST DURATION
		31	32	33	34	35	36	37	38	39	40
*	TOTAL FOR DISTRICT	ZZZZ9	ZZZ,ZZZ,ZZZ	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZ9	ZZZZZ9	ZZZ9
**	TOTAL FOR REGION	ZZZZ9	ZZZ,ZZZ,ZZZ	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZ9	ZZZZZ9	ZZZ9
***	TOTAL FOR STATE	ZZZZ9	ZZZ,ZZZ,ZZZ	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZZZ9	ZZZZ9	ZZZZZ9	ZZZ9

** NOTE: IF THE DISTRICT AND THE REGION ARE NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, NO TOTALS ARE TO BE PRODUCED.

NOTE: TO PRODUCE THE REPORT IN THE ABOVE FORMAT, THE "SORT" PROCESSING OPTIONS RECORD MUST BE: 01 - REGION; 02 - DISTRICT; 03 - PWS-ID; AND 04 - CONTAMINANT ID.

EXHIBIT NO: WAQC.324 PAGE 1 OF 5

PROGRAM NC: WAQC113

TITLE: Summary of Turbidity Analysis

FIELD NO: 1 CATALOGUE NO: 800	DATA ELEMENT NAME: SAF-R-REGION DESCRIPTION: A code identifying the administrative region of the state.
FIELD NO: 2 CATALOGUE NO: 801	DATA ELEMENT NAME: SAF-R-DISTRICT DESCRIPTION: A code identifying the administrative district of a region.
FIELD NO: 3 CATALOGUE NO: 356	DATA ELEMENT NAME: SAF-PWS-ID DESCRIPTION: The number used to identify the Public Water System (PWS) within the state.
FIELD NO: 4 CATALOGUE NO: 267	DATA ELEMENT NAME: PWT-MAILING-NAME DESCRIPTION: The official name of the PWS.
FIELD NO: 5 CATALOGUE NO: 364	DATA ELEMENT NAME: SAF-PWS-TYPE DESCRIPTION: A flag indicating if this PWS is a community or non-community PWS.
FIELD NO: 6 CATALOGUE NO: 365	DATA ELEMENT NAME: SAF-POPULATION-SERVED DESCRIPTION: Total population obtaining water from the PWS.
FIELD NO: 7 CATALOGUE NO: 366	DATA ELEMENT NAME: SAF-SOURCE-CODE DESCRIPTION: A code indicating the type of source of water for a PWS.
FIELD NO: 8 CATALOGUE NO: 362	DATA ELEMENT NAME: SAF-SAMPLE-KEY DESCRIPTION: A unique key for each record consisting of the processing date in Julian format and a sequential number of the sample.

PROGRAM NO: WAQC113

TITLE: Summary of Turbidity Analysis

FIELD NO: 9
CATALOGUE NO: 357
DATA ELEMENT NAME: SAF-CONTAMINANT-ID
DESCRIPTION: A code identifying the contaminant being sampled and analyzed.

FIELD NO: 10
CATALOGUE NO: 284
DATA ELEMENT NAME: CVT-DATA-EL-DESC
DESCRIPTION: Name corresponding to SAF-CONTAMINANT-ID.

FIELD NO: 11
DESCRIPTION: Generated record type.

FIELD NO: 12
CATALOGUE NO: 359
DATA ELEMENT NAME: SAF-SAMPLE-TYPE
DESCRIPTION: A code identifying the type of sample taken.

FIELD NO: 13
CATALOGUE NO: 360
DATA ELEMENT NAME: SAF-SAMPLE-DATE
DESCRIPTION: Date sample was taken, converted from Julian format.

FIELD NO: 14
CATALOGUE NO: 368
DATA ELEMENT NAME: SAF-LAB-ID
DESCRIPTION: A code identifying the laboratory.

FIELD NO: 15
CATALOGUE NO: 370
DATA ELEMENT NAME: SAF-DETL-ANALYSIS-RESULT
DESCRIPTION: The result of the analysis.

FIELD NO: 15
CATALOGUE NO: 371
DATA ELEMENT NAME: SAF-DETL-ANALYSIS-DECIMALS
DESCRIPTION: The number of decimal places to be used for SAF-DETL-ANALYSIS-RESULT.

FIELD NO: 16
CATALOGUE NO: 367
DATA ELEMENT NAME: SAF-ANALYSIS-METHOD
DESCRIPTION: A code identifying the analysis method used.

PROGRAM NO: WAQC113

TITLE: Summary of Turbidity Analysis

FIELD NO: 17
CATALOGUE NO: 380
DATA ELEMENT NAME: SAF-ACTUAL-NUM-SAMPLES
DESCRIPTION: Number of samples taken for analysis.

FIELD NO: 18
CATALOGUE NO: 393
DATA ELEMENT NAME: SAF-STATE-VIOLATIONS
DESCRIPTION: Number of violations found to state regulations.

FIELD NO: 19
CATALOGUE NO: 392
DATA ELEMENT NAME: SAF-FEDERAL-VIOLATIONS
DESCRIPTION: Number of violations found to federal regulations.

FIELD NO: 20
CATALOGUE NO: 394
DATA ELEMENT NAME: SAF-VIOLATION-DURATION
DESCRIPTION: Number of months that the violation occurred.

FIELD NO: 21
CATALOGUE NO: 359
DATA ELEMENT NAME: SAF-SAMPLE-TYPE
DESCRIPTION: A code identifying the type of sample taken.

FIELD NO: 22
CATALOGUE NO: 375
DATA ELEMENT NAME: SAF-SUMM-LOWEST-RESULT
DESCRIPTION: Lowest result of the analysis.

FIELD NO: 22
CATALOGUE NO: 376
DATA ELEMENT NAME: SAF-SUMM-LOW-DECIMALS
DESCRIPTION: The number of decimal places to be used for SAF-SUMM-LOWEST-RESULT.

FIELD NO: 23
CATALOGUE NO: 377
DATA ELEMENT NAME: SAF-SUMM-MEAN-RESULT
DESCRIPTION: The mean average result of the analyses.

PROGRAM NO: WAQC113

TITLE: Summary of Turbidity Analysis

FIELD NO: 23
CATALOGUE NO: 378
DATA ELEMENT NAME: SAF-SUMM-MEAN-DECIMALS
DESCRIPTION: The number of decimal places to be used for SAF-SUMM-MEAN-RESULT.

FIELD NO: 24
CATALOGUE NO: 373
DATA ELEMENT NAME: SAF-SUMM-HIGHEST-RESULT
DESCRIPTION: Highest result of the analyses.

FIELD NO: 24
CATALOGUE NO: 374
DATA ELEMENT NAME: SAF-SUMM-HIGH-DECIMALS
DESCRIPTION: The number of decimal places used for SAF-SUMM-HIGHEST-RESULT.

FIELD NO: 25
CATALOGUE NO: 810
DATA ELEMENT NAME: SAF-MCL-VIOL-S-VALUE
DESCRIPTION: MCL in violation under state regulations.

FIELD NO: 25
CATALOGUE NO: 811
DATA ELEMENT NAME: SAF-MCL-VIOL-S-DECIMALS
DESCRIPTION: The number of decimal places used for SAF-MCL-VIOL-S-VALUE.

FIELD NO: 26
CATALOGUE NO: 398
DATA ELEMENT NAME: SAF-MCL-VIOL-F-VALUE
DESCRIPTION: MCL in violation under federal regulations.

FIELD NO: 26
CATALOGUE NO: 802
DATA ELEMENT NAME: SAF-MCL-VIOL-F-DECIMALS
DESCRIPTION: The number of decimal places used for SAF-MCL-VIOL-F-VALUE.

FIELD NO: 27
DESCRIPTION: Accumulation of number of samples taken.

FIELD NO: 28
DESCRIPTION: Accumulation of the number of state violations.

FIELD NO: 29
DESCRIPTION: Accumulation of the number of federal violations.

PROGRAM NO: WAQC113

TITLE: Summary of Turbidity Analysis

FIELD NO: 30
DESCRIPTION: The longest duration, in months, of those samples taken.

FIELD NO: 31
DESCRIPTION: Accumulation of the number of PWS's per district, region and state.

FIELD NO: 32
DESCRIPTION: Accumulation of the population served by all the PWS's per district, region and state.

FIELD NO: 33
DESCRIPTION: Accumulation of the number of check samples taken per district, region and state.

FIELD NO: 34
DESCRIPTION: Accumulation of the number of regular samples taken per district, region and state.

FIELD NO: 35
DESCRIPTION: Accumulation of the number of tap samples taken per district, region and state.

FIELD NO: 36
DESCRIPTION: Accumulation of the number of raw water samples taken per district, region and state.

FIELD NO: 37
DESCRIPTION: Accumulation of the number of special samples taken per district, region and state.

FIELD NO: 38
DESCRIPTION: Accumulation of the number of violations to state regulations.

FIELD NO: 39
DESCRIPTION: Accumulation of the number of violations to federal regulations.

FIELD NO: 40
DESCRIPTION: The longest duration of a violation among those violations accumulated.

WAQC090 1 OF 1
2/11/77

LATE MONTHLY OPERATIONS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT WAQC.325

MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

WAQC090

DATE XX/XX/XX

OPERATION REPORT VIOLATIONS REPORT

PAGE ZZZZ9

PERIOD XX/XX/XX TO XX/XX/XX

PWS-ID	---PUBLIC WATER SYSTEM NAME---	REGION	DISTRICT	PWS TYPE	PWS POPULATION	PWS SOURCE	DATE OF LAST REPORT	MONTHS SINCE LAST REPORT
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX	XX	X	XXXXXXXXX	X	XX/XX/XX	XX
XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX	XX	X	XXXXXXXXX	X	XX/XX/XX	XX
1	2	3	4	5	6	7	8	9

EXHIBIT NO: WAQC.325 PAGE 1 OF 1

PROGRAM NO: WAQC090

TITLE: Operation Report Violations Report

FIELD NO: 1
CATALOGUE NO: 145
DATA ELEMENT NAME: PWF-ID
DESCRIPTION: The number used to identify the Public Water System within the State.

FIELD NO: 2
CATALOGUE NO: 151
DATA ELEMENT NAME: PWF-MAILING-NAME
DESCRIPTION: The mailing name of the PWS.

FIELD NO: 3
CATALOGUE NO: 151
DATA ELEMENT NAME: PWF-STATE-REGION
DESCRIPTION: A code identifying the administrative region within the State.

FIELD NO: 4
CATALOGUE NO: 201
DATA ELEMENT NAME: PWF-STATF-DISTRICT
DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 5
CATALOGUE NO: 182
DATA ELEMENT NAME: PWF-PLANT-TYPE
DESCRIPTION: A flag indicating if the PWS is a community or non-community PWS.

FIELD NO: 6
CATALOGUE NO: 183
DATA ELEMENT NAME: PWF-PLANT-POPULATION-SERVED
DESCRIPTION: Total population obtaining water from the PWS.

FIELD NO: 7
CATALOGUE NO: 244
DATA ELEMENT NAME: PWF-PLANT-SOURCE-CODE
DESCRIPTION: A flag telling whether the water source is surface water, ground water, purchased water, or from a distribution system.

FIELD NO: 8
CATALOGUE NO: 231
DATA ELEMENT NAME: PWF-STATE-LAST-REPORT-DATE
DESCRIPTION: The date that the last Operations Report was made, converted from Julian format.

FIELD NO: 9
DESCRIPTION: A calculation: the last report date subtracted from the current date.

VARIES

1 OF 1
3/7/77

EDIT FOR INORGANIC VIOLATION MODULE

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT WAQC.326



EXHIBIT NO: WAQC.326 PAGE 1 OF 1

PROGRAM NO: WAQC031, WAQC032, WAQC033, WAQC034, WAQC035, WAQC036

TITLE: Violations Warnings Report

FIELD NO: 1
CATALOGUE NO: 356
DATA ELEMENT NAME: SAF-PWS-ID
DESCRIPTION: A number to identify the PWS within the State.

FIELD NO: 2
CATALOGUE NO: 357
DATA ELEMENT NAME: SAF-CONTAMINANT-ID
DESCRIPTION: A four digit code used to identify the type of contaminant.

FIELD NO: 3
DESCRIPTION: Violation warning message.

WAQC038 1 OF 1
3/8/77

MERGE COMPLIANCE FILES MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.327

WAQC038

MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX

COMPLETION REPORT

PAGE ZZZZ9

① (1)

	TOTAL	RELATIVE TO THE SAMPLE ANALYSIS FILE	
NUMBER OF RECORDS ORIGINALLY ON THE SAMPLE ANALYSIS FILE	ZZZ,ZZZ,ZZ9	1	
NUMBER OF NEW RECORDS ADDED TO THE SAMPLE ANALYSIS FILE	ZZZ,ZZZ,ZZ9	2	ZZ9 % 3
NUMBER OF RECORDS CURRENTLY ON THE SAMPLE ANALYSIS FILE	ZZZ,ZZZ,ZZ9	4	ZZ9 % 5
NUMBER OF RECORDS CURRENTLY ON THE PERIODIC SAMPLE FILE	ZZZ,ZZZ,ZZ9	6	
NUMBER OF RECORDS CURRENTLY ON THE VIF TRANSACTION FILE	ZZZ,ZZZ,ZZ9	7	
NUMBER OF RECORDS CURRENTLY ON THE PWF TRANSACTION FILE	ZZZ,ZZZ,ZZ9	8	

② XXXX

EXHIBIT NO: WAQC.327 PAGE 1 OF 1

PROGRAM NO: WAQC038

TITLE: Completion Report

FIELD NO: 1
DESCRIPTION: Accumulation of the number of records on the input SAF.

FIELD NO: 2
DESCRIPTION: Accumulation of the number of records added to the SAF.

FIELD NO: 3
DESCRIPTION: Calculation: number of records added to the SAF divided by the number of records on the input SAF.

FIELD NO: 4
DESCRIPTION: Accumulation of the number of records written to the output SAF.

FIELD NO: 5
DESCRIPTION: Calculation: number of records written to the SAF divided by the number of records on the input SAF.

FIELD NO: 6
DESCRIPTION: An accumulation of the number of records on the PSF.

FIELD NO: 7
DESCRIPTION: An accumulation of the number of records written to the VIF transaction file.

FIELD NO: 8
DESCRIPTION: An accumulation of the number of records written to the PWF transaction file.

WAQC200 1 OF 1

3/24/77

MAILING LABELS AND REPORT CARDS MODULE

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT WAQC.329

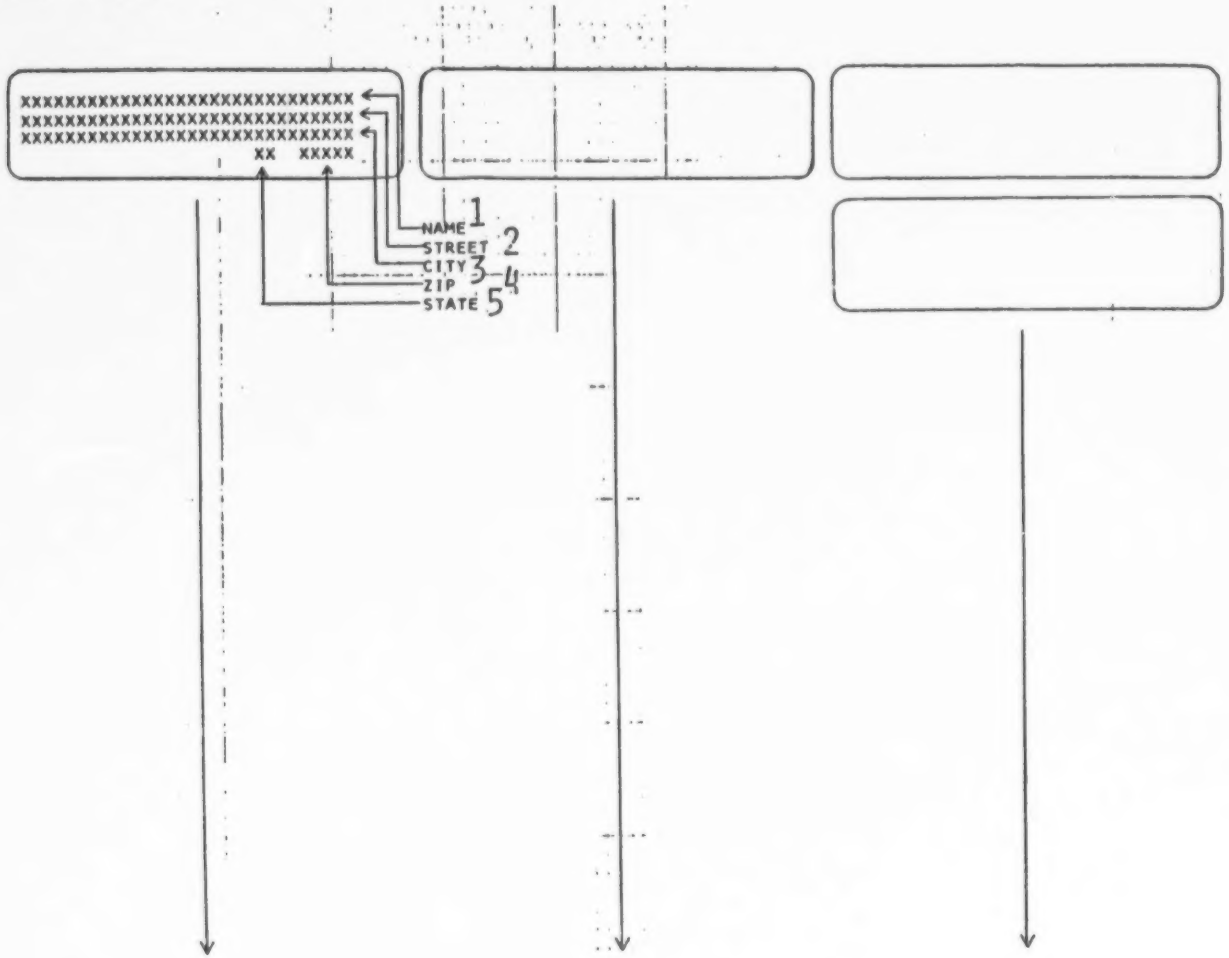


EXHIBIT NC: WAQC.329 PAGE 1 OF 1

PROGRAM NC: WAQC200

TITLE: Mailing Labels
Ncte: All data is extracted from the PWF in module WAQC130

FIELD NO: 1 CATALOGUE NO: 151	DATA ELEMENT NAME: PWF-MAILING-NAME DESCRIPTION:	The mailing name of the PWS.
FIELD NO: 2 CATALOGUE NO: 152	DATA ELEMENT NAME: PWF-MAILING-STREET DESCRIPTION:	The street name and number of the mailing address of the PWS.
FIELD NO: 3 CATALCGUE NO: 153	DATA ELEMENT NAME: PWF-MAILING-CITY DESCRIPTION:	The city name of the PWS mailing address.
FIELD NO: 4 CATALOGUE NO: 155	DATA ELEMENT NAME: PWF-MAILING-ZIP-CODE DESCRIPTION:	The U.S. Postal Service Zip Code of the mailing address.
FIELD NO: 5 CATALOGUE NO: 154	DATA ELEMENT NAME: PWF-MAILING-STATE DESCRIPTION:	The two character U.S. Postal Service abbreviation of the mailing address state.

WAQC200 1 OF 1
3/24/77

MAILING LABELS AND REPORT CARDS MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT WAQC.330

WAQC200

DATE XX/XX/XX

MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

MONTHLY OPERATIONS REPORT UPDATE FORM PAGE ZZZZ9

PWS-ID: XXXXXXX
NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ADDRESS: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XX XXXXX

DATA ENTRY

CARD COLUMN 1 - 7	XXXXXXX	(PWS ID)
CARD COLUMN 8 - 9	13	
CARD COLUMN 16-19	XXXX	(DATE LAST REPORT)

NOTE: PLEASE RETURN THIS FORM WITH YOUR MONTHLY OPERATION REPORT FOR XXXXXXXXX, 19XX

EXHIBIT NO: WAQC.330 PAGE 1 OF 1

PROGRAM NO: WAQC200

TITLE: Monthly Operations Report Update Form
Note: All data is extracted from the PWF in module WAQC130

FIELD NO: 1 DATA ELEMENT NAME: PWF-MAILING-NAME
CATALOGUE NO: 151 DESCRIPTION: The mailing name of the PWS.

FIELD NO: 1 DATA ELEMENT NAME: SAF-PWS-ID
CATALOGUE NO: 356 DESCRIPTION: The identification number of the PWS within the state.

FIELD NO: 1 DATA ELEMENT NAME: PWF-MAILING-STREET
CATALOGUE NO: 152 DESCRIPTION: The street name and number of the mailing address of the PWS.

FIELD NO: 1 DATA ELEMENT NAME: PWF-MAILING-CITY
CATALOGUE NO: 153 DESCRIPTION: The city name of the PWS mailing address.

FIELD NO: 1 DATA ELEMENT NAME: PWF-MAILING-STATE
CATALOGUE NO: 154 DESCRIPTION: The two character U.S. Postal Service abbreviation of the mailing address state.

FIELD NO: 1 DATA ELEMENT NAME: PWF-MAILING-ZIP-CODE
CATALOGUE NO: 155 DESCRIPTION: The U.S. Postal Service Zip Code of the mailing address.

FIELD NO: 2 DATA ELEMENT NAME: SAF-PWS-ID
CATALOGUE NO: 356 DESCRIPTION: The identification number of the PWS within the state.

FIELD NO: 3 DATA ELEMENT NAME: PWF-STATE-LAST-REPORT-DATE
CATALOGUE NO: 231 DESCRIPTION: The month and year of the last operations report submitted by the PWS.

FIELD NO: 4
DESCRIPTION: The month and year that appear in the PROC record.

4. Error Messages and Remedial Actions

Error messages other than those from the Error Message Table (EMT) and the Standard Error Messages for Processing Options are listed in program number sequence, along with their remedial actions, if any.

a. WAQC010 - Periodic Sample File Data Entry and Update

MESSAGE: ERROR - NO PROC CARD SUPPLIED
REMEDIAL ACTION: obtain PROC card for data entry and rerun job.

MESSAGE: ERROR - INVALID DATE ON PROC CARD
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - PSFI-PROC-OUTPUT NOT EQUAL TO Y OR N
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - PSFI-PROC-FIELD SELECT NOT Y OR N
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - NO CVT FILE SUPPLIED
REMEDIAL ACTION: mount CVT file and rerun job.

b. WAQC011 - Periodic Sample File Transaction Report

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records and SORT Records.

MESSAGE: ERROR - NOT DET FILE PROVIDED
REMEDIAL ACTION: mount DET file and rerun job.

MESSAGE: ERROR - RECORD TYPE NOT SORT OR PROC
REMEDIAL ACTION: check for keypunch error. If none, return option to data entry for correction and use new option to rerun job.

MESSAGE: ERROR - NO PSFI-PSUM FILE PROVIDED
REMEDIAL ACTION: mount Periodic Sample Transaction file and rerun job.

MESSAGE: ERROR - DET EXCEEDS MAXIMUM ENTRIES
REMEDIAL ACTION: notify programming that the DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - SORT OPTIONS RECORD BLANK
REMEDIAL ACTION: return option to data entry for correction and use new SORT option to rerun job.

c. WAQC020 - Sample Analysis File Update

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC records.

MESSAGE: ERROR - CONTAINS INVALID ERROR FILE CODE IN PROC
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - CONTAINS INVALID CATALOG PRINT CODE
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - PROC TYPE NOT PROC
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

d. WAQC025 - Compliance Files Creation

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for PROC.

MESSAGE: NO ERRORS ON PROC - SAF FILES WRITTEN - CONTINUE
REMEDIAL ACTION: None. This means that the job has run successfully.

MESSAGE: ERROR - START DATE BAD ON PROC
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - END DATE BAD ON PROC
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - COMPLIANCE CYCLE INVALID ON PROC
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - LAG TIME ON PROC BAD
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - AIR TEMP INVALID ON PROC
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - UNITS BAD ON PROC
REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

MESSAGE: ERROR - OPERATION REPORT FIELD INVALID ON PROC

REMEDIAL ACTION: check for keypunch errors. If none, return option to data entry for correction and use new PROC to rerun job.

e. WAQC031 - Edit for Turbidity Violations

MESSAGE: NO RECORDS ON SAF FILE
REMEDIAL ACTION: Make sure that the correct file was used for the run. If file is the correct one, there were no Turbidity violations this run.

f. WAQC032 - Edit for Inorganic Violations

MESSAGE: ERROR - NO CVT FILE SUPPLIED
REMEDIAL ACTION: Mount CVT file and rerun job.

MESSAGE: ERROR - NO RGF-FILE SUPPLIED
REMEDIAL ACTION: Mount RGF and rerun job.

MESSAGE: ERROR - SAF PWS-ID NOT ON PWF
REMEDIAL ACTION: None. This is to notify the user that the PWS must be added to the file before this transaction can be processed.

MESSAGE: ERROR - SAF CONTAMINANT ID INVALID
REMEDIAL ACTION: None. This is to notify the user that the Contaminant ID is invalid and must be corrected before the record can be processed.

MESSAGE: ERROR - PSF PWS-ID NOT ON PWF FILE
REMEDIAL ACTION: None. This is to notify the user that the PWS must be added to the file before this transaction can be processed.

MESSAGE: ERROR - PSF CONTAMINANT-ID INVALID
REMEDIAL ACTION: None. This is to notify the user that the Contaminant ID is invalid and must be corrected before the record can be processed.

g. WAQC033 - Edit for Organic Violations

MESSAGE: ERROR - NO CVT FILE SUPPLIED
REMEDIAL ACTION: Mount CVT file and rerun job.

MESSAGE: ERROR - NO RGF-FILE SUPPLIED
REMEDIAL ACTION: Mount RGF and rerun job.

MESSAGE: ERROR - SAF PWS-ID NOT ON PWF
REMEDIAL ACTION: None. This is to notify the user that the PWS must be added to the file before this transaction can be processed.

MESSAGE: ERROR - SAF CONTAMINANT ID INVALID
REMEDIAL ACTION: None. This is to notify the user that the Contaminant ID is invalid and must be corrected before the record can be processed.

MESSAGE: ERROR - PSF PWS-ID NOT ON PWF FILE
REMEDIAL ACTION: None. This is to notify the user that the PWS must be added to the file before this transaction can be processed.

MESSAGE: ERROR - PSF CONTAMINANT-ID INVALID
REMEDIAL ACTION: None. This is to notify the user that the Contaminantion ID is invalid and must be corrected before the record can be processed.

h. WAQC034 - Edit for Bacteriological Violations

MESSAGE: OLD PSF SAMPLE TRANSFERED TO SAF
REMEDIAL ACTION: A sample was found on the PSF with a sample date prior to the start date of the compliance period being processed. It was transferred to the SAF without being checked for compliance. This record must be checked manually.

MESSAGE: COMPLIANCE PERIOD SKIPPED
REMEDIAL ACTION: One or more compliance periods have been missed since the last date shown on the CSF and the current processing date. This may occur with the first run of a newly activated PWS. Otherwise, the program must be rerun using these input files with an earlier date in the PROC to pick up the missed period(s).

MESSAGE: NO POPULATION TABLE ENTRY
REMEDIAL ACTION: There was no matching entry in the Population Table for Federal and/or State Regulations for the population served for this PWS. Verify the entry in the file. If it is correct, the Population Table will have to be modified. Notify programming.

MESSAGE: COMPLIANCE PERIOD ALREADY PROCESSED
REMEDIAL ACTION: This is an information message only, not an error. Processing was bypassed for this PWS so that no duplication will occur.

MESSAGE: NO NON-CHLORINE RETEST WITHIN TIME REQ.
REMEDIAL ACTION: A PWS using Chlorine Residual monitoring fell below the required chlorine level and did not take a retest sample by some other method within the allowable retest time. This is a warning and does not stop processing.

i. WAQC035 - Edit for Gross Alpha Violations

MESSAGE: ERROR - NO CVT FILE SUPPLIED
REMEDIAL ACTION: Mount CVT file and rerun job.

MESSAGE: ERROR - NO RGF-FILE SUPPLIED
REMEDIAL ACTION: Mount RGF and rerun job.

MESSAGE: ERROR - SAF PWS-ID NOT ON PWF
REMEDIAL ACTION: None. This is to notify the user that the PWS must be added to the file before this transaction can be processed.

MESSAGE: ERROR - SAF CONTAMINANT ID INVALID
REMEDIAL ACTION: None. This is to notify the user that the Contaminant ID is invalid and must be corrected before the record can be processed.

MESSAGE: ERROR - PSF PWS-ID NOT ON PWF FILE
REMEDIAL ACTION: None. This is to notify the user that the PWS must be added to the file before this transaction can be processed.

MESSAGE: ERROR - PSF CONTAMINANT-ID INVALID
REMEDIAL ACTION: None. This is to notify the user that the Contaminant ID is invalid and must be corrected before the record can be processed.

MESSAGE: PSF SAMPLE RECEIVED DATED TOO OLD
REMEDIAL ACTION: None. This is to notify the user that the sample was not processed.

j. WAQC036 - Edit for Gross Beta Violations

MESSAGE: ERROR - NO CVT FILE SUPPLIED
REMEDIAL ACTION: Mount CVT file and rerun job.

MESSAGE: ERROR - NO RGF FILE SUPPLIED
REMEDIAL ACTION: Mount RGF and rerun job.

MESSAGE: ERROR - SAF PWS-ID NOT ON PWF
REMEDIAL ACTION: None. This is to notify the user that the PWS must be added to the file before this transaction can be processed.

MESSAGE: ERROR - SAF CONTAMINANT-ID INVALID
REMEDIAL ACTION: None. This is to notify the user that the Contaminant ID is invalid and must be corrected before the record can be processed.

MESSAGE: ERROR - PSF PWS-ID NOT ON PWF-FILE
REMEDIAL ACTION: None. This is to notify the user that the PWS must be added to the file before this transaction can be processed.

MESSAGE: ERROR - PSF CONTAMINANT-ID INVALID
REMEDIAL ACTION: None. This is to notify the user that the Contaminant ID is invalid and must be corrected before the record can be processed.

MESSAGE: PSF SAMPLE RECEIVED DATED TOO OLD
REMEDIAL ACTION: None. Sample was rejected.

MESSAGE: ERROR - NO FEDERAL GROSS BETA RGF RECORDS
REMEDIAL ACTION: No Gross Beta regulations have been entered on the RGF. Gross Beta regulations should be coded and entered along with the rest of the Federal and State Regulations into REGS010 before this transaction can be processed.

MESSAGE: ERROR - NO STATE GROSS BETA RGF RECORDS

REMEDIAL ACTION: No State Gross Beta regulations have been entered on the RGF. Gross Beta regulations should be coded and entered along with the rest of the Federal and State Regulations into REGS010 before this transaction can be processed.

MESSAGE: ERROR - GROSS BETA EMITTER RGF RECORDS MISSING

REMEDIAL ACTION: The Gross Beta Regulations for a specific Gross Beta Emitter have not been entered in the RGF. The specific regulation should be coded and entered along with the rest of the Federal and State Regulations into REGS010 before this transaction can be processed1

MESSAGE: ERROR - NO GROSS BETA EMITTER RGF RECORDS

REMEDIAL ACTION: No Gross Beta Emitter records have been entered on the RGF. All Federal and State Regulations should be coded for Gross Beta Emitters and entered along with the rest of the Federal and State Regulations into REGS010 before this transaction can be processed.

k. WAQC037 - Operation Report Violations

None.

l. WAQC038 - Merge Compliance Files

None.

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m. WAQC040 - Chemical MCL Violations Report

Any Error Messages that do not appear below can be found in Standard Error Messages and Remedial Actions of SORT Records.

MESSAGE: ERROR - NO PROC ON VIFI FILE
REMEDIAL ACTION: obtain PROC from data entry and rerun job.

MESSAGE: ERROR - MORE THAN 40 VIOLATIONS RECORDS ON DET
REMEDIAL ACTION: notify programming that the DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - NO DET FILE
REMEDIAL ACTION: mount DET file and rerun job.

MESSAGE: ERROR - PROC TYPE NOT SORT
REMEDIAL ACTION: check for keypunch error, if none, return option to data entry for correction, obtain new option and rerun job.

n. WACC041 - Radiological MCL Violations Report

Any Error Messages that do not appear below can be found in Standard Error Messages and Remedial Actions of SORT Records.

MESSAGE: ERROR - NO PROC ON VIFI FILE
REMEDIAL ACTION: obtain PROC from data entry and rerun job.

MESSAGE: ERROR - MORE THAN 40 VIOLATIONS RECORDS ON DET
REMEDIAL ACTION: notify programming that the DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - NO DET FILE
REMEDIAL ACTION: mount DET file and rerun job.

MESSAGE: ERROR - PROC TYPE NOT SORT
REMEDIAL ACTION: check for keypunch error, if none, return option to data entry for correction, obtain new option and rerun job.

Reproduced from best available copy.

o. WAQC050 - Bacteriological MCL Violations Report

Any Error Messages that do not appear below can be found in Standard Error Messages and Remedial Actions of SORT Records.

MESSAGE: ERROR - NO PROC ON VIFI FILE
REMEDIAL ACTION: obtain PROC from data entry and rerun job.

MESSAGE: ERROR - MORE THAN 40 VIOLATIONS RECORDS ON DET
REMEDIAL ACTION: notify programming that the DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - NO DET FILE
REMEDIAL ACTION: mount DET file and rerun job.

MESSAGE: ERROR - PROC TYPE NOT SORT
REMEDIAL ACTION: check for keypunch error, if none, return option to data entry for correction, obtain new option and rerun job.

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p. WAQC051 - Turbidity MCL Violations Report

Any Error Messages that do not appear below can be found in Standard Error Messages and Remedial Actions of SORT Records.

MESSAGE: ERROR - NO PROC ON VIFI FILE
REMEDIAL ACTION: obtain PROC from data entry and rerun job.

MESSAGE: ERROR - MORE THAN 40 VIOLATIONS RECORDS ON DET
REMEDIAL ACTION: notify programming that the DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - NO DET FILE
REMEDIAL ACTION: mount DET file and rerun job.

MESSAGE: ERROR - PROC TYPE NOT SORT
REMEDIAL ACTION: check for keypunch error, if none, return option to data entry for correction, obtain new option and rerun job.

q. WAQC060 - Chemical Sampling Violations Report

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for SORT Records.

MESSAGE: ERROR - FIRST RECORD ON VIFI NOT HEADER
REMEDIAL ACTION: make sure the correct file has been mounted. If so, there is a probable program error or I/O error. Notify programmer.

MESSAGE: ERROR - RECORD TYPE NOT SORT
REMEDIAL ACTION: probable program error. Flush job stream and notify programmer.

MESSAGE: ERROR - DET EXCEEDS MAXIMUM ENTRIES
REMEDIAL ACTION: program area not large enough to contain DET. Program must be changed to allow extra entries. Notify programmer.

MESSAGE: ERROR - DET FILE NOT PROVIDED
REMEDIAL ACTION: mount DET file and rerun job.

MESSAGE: ERROR - NO VIFI PROVIDED
REMEDIAL ACTION: mount VIFI input file and rerun job.

MESSAGE: ERROR - SORT OPTIONS RECORD BLANK
REMEDIAL ACTION: flush job stream and have data entry code a SORT processing option for this job before attempting a rerun.

MESSAGE: ERROR - SORT SEQUENCE SAME AS INPUT SEQUENCE
REMEDIAL ACTION: no sort option is required for this job if this sequence is desired. Rerun job without SORT option.

Reproduced from best available copy.

r. WAQC061 - Radiological Sampling Violations Report

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for SORT Records.

MESSAGE: ERROR - FIRST RECORD ON VIFI NOT HEADER
REMEDIAL ACTION: make sure the correct file has been mounted. If so, there is a probable program error or I/O error. Notify programmer.

MESSAGE: ERROR - RECORD TYPE NOT SORT
REMEDIAL ACTION: probable program error. Flush job stream and notify programmer.

MESSAGE: ERROR - DET EXCEEDS MAXIMUM ENTRIES
REMEDIAL ACTION: program area not large encugh to contain DET. Program must be changed to allow extra entries. Notify programmer.

MESSAGE: ERROR - DET FILE NOT PROVIDED
REMEDIAL ACTION: mount DET file and rerun job.

MESSAGE: ERROR - NO VIFI PROVIDED
REMEDIAL ACTION: mount VIFI input file and rerun job.

MESSAGE: ERROR - SORT OPTIONS RECORD BLANK
REMEDIAL ACTION: flush job stream and have data entry code a SORT processing option for this job before attempting a rerun.

MESSAGE: ERROR - SORT SEQUENCE SAME AS INPUT SEQUENCE
REMEDIAL ACTION: no sort cption is required for this job if this sequence is desired. Rerun job without SORT option.

s. WAQC070 - Bacteriological Sampling Violations Report

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for SORT Records.

MESSAGE: ERROR - FIRST RECORD ON VIFI NOT HEADER
REMEDIAL ACTION: make sure the correct file has been mounted. If so, there is a probable program error or I/O error. Notify programmer.

MESSAGE: ERROR - RECORD TYPE NOT SORT
REMEDIAL ACTION: probable program error. Flush job stream and notify programmer.

MESSAGE: ERROR - DET EXCEEDS MAXIMUM ENTRIES
REMEDIAL ACTION: program area not large enough to contain DET. Program must be changed to allow extra entries. Notify programmer.

MESSAGE: ERROR - DET FILE NOT PROVIDED
REMEDIAL ACTION: mount DET file and rerun job.

MESSAGE: ERROR - NO VIFI PROVIDED
REMEDIAL ACTION: mount VIFI input file and rerun job.

MESSAGE: ERROR - SORT OPTIONS RECORD BLANK
REMEDIAL ACTION: flush job stream and have data entry code a SORT processing option for this job before attempting a rerun.

MESSAGE: ERROR - SORT SEQUENCE SAME AS INPUT SEQUENCE
REMEDIAL ACTION: no sort option is required for this job if this sequence is desired. Rerun job without SORT option.

t. WAQC080 - Turbidity Sampling Violations Report

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for SORT Records.

MESSAGE: ERROR - FIRST RECORD ON VIFI NOT HEADER
REMEDIAL ACTION: make sure the correct file has been mounted. If so, there is a probable program error or I/O error. Notify programmer.

MESSAGE: ERROR - RECORD TYPE NOT SORT
REMEDIAL ACTION: probable program error. Flush job stream and notify programmer.

MESSAGE: ERROR - DET EXCEEDS MAXIMUM ENTRIES
REMEDIAL ACTION: program area not large enough to contain DET. Program must be changed to allow extra entries. Notify programmer.

MESSAGE: ERROR - DET FILE NOT PROVIDED
REMEDIAL ACTION: mount DET file and rerun job.

MESSAGE: ERROR - NO VIFI PPOVIDED
REMEDIAL ACTION: mount VIFI input file and rerun job.

MESSAGE: ERROR - SORT OPTIONS RECORD BLANK
REMEDIAL ACTION: flush job stream and have data entry code a SORT processing option for this job before attempting a rerun.

MESSAGE: ERROR - SORT SEQUENCE SAME AS INPUT SEQUENCE
REMEDIAL ACTION: no sort option is required for this job if this sequence is desired. Rerun job without SORT option.

u. WAQC090 - Late Monthly Operations Report

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for SORT Records.

MESSAGE: ERROR - FIRST RECORD ON VIF NOT HEADER
REMEDIAL ACTION: Make sure the correct file has been mounted. If so, there is a probable program error or I/O error. Notify programmer.

MESSAGE: ERROR - RECORD TYPE NOT SORT
REMEDIAL ACTION: Program area not large enough to contain DET. Program must be changed to allow extra entries. Notify programmer.

MESSAGE: ERROR - NO DET FILE PROVIDED
REMEDIAL ACTION: Mount DET file and rerun job.

MESSAGE: ERROR- NO VIFI PROVIDED
REMEDIAL ACTION: Flush job stream and have data entry code a SORT processing option for this job before attempting a rerun.

MESSAGE: ERROR - SORT SEQUENCE SAME AS INPUT SEQUENCE
REMEDIAL ACTION: No sort option is required for this job if this sequence is desired. Rerun job without SORT option.

v. WAQC100 - Sample Analysis File Selection

Any error messages that do not appear below can be found in Standard Error Messages & Remedial Actions for PROC Records and SEL1 & SEL2 Records.

MESSAGE: ERROR - ALL GROUP-VALUES NEGATIVE IN PROC RECORD
REMEDIAL ACTION: return PROC option to data entry for correction. Rerun job after correction has been made.

MESSAGE: ERROR - SA DATA ELEMENT TABLE TOO LARGE OR MISSING
REMEDIAL ACTION: check to see if Sample Analysis File DET has been mounted. If not, mount it and rerun job. If it has been mounted, then the program will have to be changed to accommodate the extra DET entries. Notify programmer.

MESSAGE: ERROR - CVT TOO LARGE OR MISSING
REMEDIAL ACTION: check to see if SAF CVT has been mounted. If not, mount it and rerun job. If it has been mounted, then the program will have to be changed to accommodate the extra CVT entries. Notify programmer.

MESSAGE: ERROR - DECIMAL VALUE TOO LONG OR NOT NUMERIC
REMEDIAL ACTION: return SEL1 option to data entry for correction. Rerun job after correction has been made.

MESSAGE: ERROR - VALUE FIELD IN THE SEL1 NOT NUMERIC
REMEDIAL ACTION: check for keypunch error. If not, return to data entry for correction. Rerun job after correction has been made.

w. WAQC110 - Chemical Analyses Summary Report

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for SORT Records.

MESSAGE: ERROR - RECORD TYPE NOT SORT
REMEDIAL ACTION: check for keypunch errors, if none, return options to data entry for correction. Obtain new options and rerun job.

MESSAGE: ERROR - FIRST ENTRY ON SORT OPTIONS RECORD MISSING
REMEDIAL ACTION: check for keypunch errors, if none, return options to data entry for correction. Obtain new options and rerun job.

x. WAQC111 - Radiological Analyses Summary Report

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for SORT Records.

MESSAGE: ERROR - RECORD TYPE NOT SORT
REMEDIAL ACTION: Check for keypunch errors, if none, return options to data entry for correction. Obtain new options and rerun job.

MESSAGE: ERROR - FIRST ENTRY ON SORT OPTIONS RECORD MISSING
REMEDIAL ACTION: Check for keypunch errors, if none, return options to data entry for correction. Obtain new options and rerun job.

MESSAGE: ERROR - FIRST RECORD ON FILE NOT HEADER
REMEDIAL ACTION: Either the incorrect file was mounted to process this run or the output file from WAQC100 was in error. Make sure that the correct file was mounted.

MESSAGE: ERROR - SAFI FILE NOT PROVIDED
REMEDIAL ACTION: mount SAF and rerun job.

MESSAGE: ERROR - DET EXCEEDS MAXIMUM ENTRIES
REMEDIAL ACTION: Notify programming that the DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - DET FILE NOT PROVIDED
REMEDIAL ACTION: Mount DET file and rerun job.

y. WAQC112 - Bacteriological Analyses Summary Report

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for SORT Records.

MESSAGE: ERROR - RECORD TYPE NOT SORT
REMEDIAL ACTION: Check for keypunch errors, if none, return options to data entry for correction. Obtain new options and rerun job.

MESSAGE: ERROR - FIRST ENTRY ON SORT OPTIONS RECORD MISSING
REMEDIAL ACTION: Check for keypunch errors, if none, return options to data entry for correction. Obtain new options and rerun job.

MESSAGE: ERROR - FIRST RECORD ON FILE NOT HEADER
REMEDIAL ACTION: Either the incorrect file was mounted to process this run or the output file from WAQC100 was in error. Make sure that the correct file was mounted.

MESSAGE: ERROR - SAFI FILE NOT PROVIDED
REMEDIAL ACTION: Mount SAF and rerun job.

MESSAGE: ERROR - DET EXCEEDS MAXIMUM ENTRIES
REMEDIAL ACTION: Notify programming that the DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - DET FILE NOT PROVIDED
REMEDIAL ACTION: Mount DET file and rerun job.

z. WAQC113 - Turbidity Analyses Summary Report

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for SORT Records.

MESSAGE: ERROR - RECORD TYPE NOT SORT
REMEDIAL ACTION: Check for keypunch errors, if none, return options to data entry for correction. Obtain new options and rerun job.

MESSAGE: ERROR - FIRST ENTRY ON SORT OPTIONS RECORD MISSING
REMEDIAL ACTION: Check for keypunch errors, if none, return options to data entry for correction. Obtain new options and rerun job.

MESSAGE: ERROR - FIRST RECORD ON FILE NOT HEADER
REMEDIAL ACTION: Either the incorrect file was mounted to process this run or the output file from WAQC100 was in error. Make sure that the correct file was mounted.

MESSAGE: ERROR - SAFI FILE NOT PROVIDED
REMEDIAL ACTION: Mount SAF and rerun job.

MESSAGE: ERROR - DET EXCEEDS MAXIMUM ENTRIES
REMEDIAL ACTION: Notify programming that the DET has exceeded program capacity and program must be changed to accommodate larger DET.

MESSAGE: ERROR - DET FILE NOT PROVIDED
REMEDIAL ACTION: Mount DET file and rerun job.

aa. WAQC120 - Violations File Data Entry & Update

MESSAGE: ERROR - PROC TYPE NOT PROC
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun job.

bb. WAQC125 - Violations File Selection

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for PROC Records and SEL1 and SEL2 Records.

MESSAGE: ERROR - NO PROC RECORDS WERE SUPPLIED
REMEDIAL ACTION: Obtain processing options from data entry and rerun job.

MESSAGE: ERROR - VI DATA ELEMENT TABLE TOO LARGE OR MISSING
REMEDIAL ACTION: If DET was not mounted, mount DET and rerun job. If DET was too large, notify programming that the DET has exceeded program capacity and that the program must be changed to accommodate a larger DET.

MESSAGE: ERROR - DECIMAL VALUE TOO LONG OR NOT NUMERIC
REMEDIAL ACTION: Check for keypunch error, if none, return to data entry for correction. Obtain new options and rerun job.

MESSAGE: ERROR - FIELD IN THE SEL1 NOT NUMERIC
REMEDIAL ACTION: Check for keypunch error, if none, return the option to data entry for corrections. Obtain new options and rerun job.

cc. WAQC130 - Sample Scheduling

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for PROC Records.

MESSAGE: ERROR - PROC RECORD CONTAINS INVALID ERROR FILE CODE
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new options and rerun job.

MESSAGE: ERROR - PROC RECORD CONTAINS INVALID PRINT CODE
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for corrections. Obtain new options and rerun job.

MESSAGE: ERROR - PROC CONTAINS INVALID RERUN OPTION CODE
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain options and rerun job.

MESSAGE: ERROR - PROC CONTAINS INVALID OPERATION REPORT CODE
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new options and rerun job.

MESSAGE: ERROR - NO RECORDS ON CODE VALUE TABLE (CVT)
REMEDIAL ACTION: Make sure that CVT was mounted. If not, mount CVT and rerun job. If it was mounted, CVT was not loaded initially. Notify programming that the CVT must be built using program MSIS030.

MESSAGE: ERROR - CVT EXCEEDS 50 RECORDS
REMEDIAL ACTION: Notify programming that the CVT has exceeded program capacity and the program must be changed to accommodate a larger CVT.

MESSAGE: ERROR - NO RECORDS ON REGS FILE (RGF)
REMEDIAL ACTION: REGS010 must be run to create RGF. Make sure that the correct file was mounted.

MESSAGE: ERROR - NO RECORDS ON SCHEDULING OPTION FILE
REMEDIAL ACTION: Obtain scheduling options from data entry and rerun job.

MESSAGE: ERROR - NO RECORDS ON THE PUBLIC WATER FILE
REMEDIAL ACTION: Make sure that the correct file was mounted. PWF must contain some records or you have the wrong field.

MESSAGE: ERROR - INVALID PWS ID
REMEDIAL ACTION: None. This is to notify the user that either the PWS ID has an error or it is actually not on the PWF and must be entered before this transaction can be processed.

MESSAGE: ERROR - INVALID BACTERIOLOGICAL REQUEST CODE
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun job.

MESSAGE: ERROR - INVALID TURBIDITY REQUEST CODE
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun job.

MESSAGE: ERROR - INVALID CHEMICAL REQUEST CODE
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun job.

MESSAGE: ERROR - INVALID NATURAL RADIOLOGICAL REQUEST CODE
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun job.

MESSAGE: ERROR - INVALID MANMADE RADIOLOGICAL REQUEST CODE
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun job.

MESSAGE: ERROR - INVALID LABEL REQUEST CODE
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun job.

MESSAGE: ERROR - INVALID LABEL NUMBER
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun job.

MESSAGE: ERROR - INVALID RESCHEDULE CHEMICAL CODE
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun job.

MESSAGE: ERROR - INVALID RESCHEDULE RADIOLOGICAL CODE
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun job.

MESSAGE: ERROR - ALL REQUEST CODES ARE N
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun job.

MESSAGE: ERROR - LABEL OPTION DOES NOT MATCH LABEL NUMBER
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun the job.

MESSAGE: ERROR - REGS EXCEED TABLE SIZE
REMEDIAL ACTION: Notify programming that the REGS table entries exceeds program capacity and program must be changed to accommodate larger REGS table.

MESSAGE: PWS-ID of _____ ON SCHEDULING OUTPUT OPTION CARD NOT ON PWF

REMEDIAL ACTION: None. This is used to notify the user that either the PWS-ID has been entered in error, or it actually is not on the PWF and must be entered before this transaction can be processed.

MESSAGE: PWS-ID INACTIVE - SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the PWS is flagged as inactive and will therefore not require scheduling.

MESSAGE: PWS CONSECUTIVE, NOT REQD TO MONITOR WATER - SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS is a consecutive water source which is not required to monitor its water quality and therefore not required in scheduling.

MESSAGE: PWS NOT REGULATED BY STATE OR FED REGS - SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS is not regulated by State or Federal Regulations and is therefore not required to be scheduled.

MESSAGE: PWS _____ BEGIN DATE MM/DD/YY GREATER THAN PROC DATE - SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS began operation after the date used to determine scheduling and therefore is not required to be scheduled.

MESSAGE: PWS _____ GROUND SOURCE ONLY - TURBIDITY SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS is a ground water source for which Turbidity scheduling is not required.

MESSAGE: PWS _____ ALREADY SCHEDULED - TURBIDITY SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS has already been scheduled for turbidity testing.

MESSAGE: PWS _____ NO COMPLIANCE RUN YET - SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS has not yet been checked for compliance and is therefore not required to be scheduled.

MESSAGE: PWS _____ IS COMMUNITY/GROUND WATER SOURCE CHEMICAL SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS is a community, ground water source and is therefore not required to be scheduled for chemical testing.

MESSAGE: PWS _____ IS NON-COMMUNITY/GROUND WATER SOURCE - CHEMICAL SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS is a non-community, ground water source and is therefore not required to be scheduled for chemical testing.

MESSAGE: PWS _____ IS COMMUNITY/SURFACE WATER SOURCE - CHEMICAL SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS is a community, surface water source and is therefore not required to be scheduled for chemical testing.

MESSAGE: PWS _____ IS NON-COMMUNITY/SURFACE WATER SOURCE - CHEMICAL SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS is a non-community, surface water source and is therefore not required to be scheduled for chemical testing.

MESSAGE: PWS _____ ALREADY SCHEDULED - CHEMICAL SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS has already been scheduled for chemical testing.

MESSAGE: PWS _____ALREADY SCHEDULED - BACTERIOLOGICAL SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS has already been scheduled for chemical testing.

MESSAGE: REGULATIONS RECORD MISSING - STOP PROCESS

REMEDIAL ACTION: Notify programming that the missing regulation must be coded and entered along with the rest of the Federal and State Regulations using program REGS010 before any more processing can be done for scheduling.

MESSAGE: PWS _____ NOT REQUIRED FOR NATURAL RADS - SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS is not required to have natural radiological testing.

MESSAGE: PWS _____ IS COMMUNITY AND REG FOR NONCOM ONLY - NATURAL RADS SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS is regulated under non-community standards and is therefore not required to have natural radiological testing.

MESSAGE: PWS _____ IS NON-COMMUNITY AND REGS FOR COM ONLY - NATURAL RAD SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS is regulated under community standards and is therefore not required to have natural radiological testing.

MESSAGE: PWS _____ ALREADY SCHEDULED - NATURAL RADIONUCLIDE SCHEDULING INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS has already been scheduled for testing.

MESSAGE: PWS _____ NOT REQUIRED TO SUBMIT OPERATIONS REPORT - SCHEDULING REQUEST INVALID

REMEDIAL ACTION: None. This is used to notify the user that the requested PWS is not required to submit an Operations Report and that this request is therefore invalid.

dd. WAQC140 - Chemical & Radiological Schedule Report

None.

ee. WAQC150 - Chemical & Radiological Analysis Report Form

None.

ff. WAQC170 - Turbidity & Bacteriological Sample Analysis Form

Any error messages that appear for this program can be found in Standard Error Messages and Remedial Actions for RESTART Records.

gg. WAQC180 - Turbidity & Bacteriological Summary Form

Any error messages that appear for this program can be found in Standard Error Messages and Remedial Actions for RESTART Records.

hh. WAQC200 - Mailing Labels & Report Cards

None.

ii. WAQC210 - Lab Table Creation

MESSAGE: ERROR - NO PROCESSING OPTION CARDS WERE PROVIDED
REMEDIAL ACTION: obtain processing option cards from data entry and rerun job.

MESSAGE: PROC CARD CONTAINS AN INVALID DATE
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - NUMBER OF TRACKS ALLOCATED FOR LBT TOO LOW
REMEDIAL ACTION: flush job and notify programmer.

MESSAGE: ERROR - LBI-PROC-OUTPUT NOT EQUAL TO Y OR N
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - LBI-PROC-FIELD-SELECT NOT EQUAL TO N
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry.

MESSAGE: ERROR - NO CVT FILE SUPPLIED
REMEDIAL ACTION: mount CVT and rerun job.

MESSAGE: ERROR - INPUT TRANSACTIONS ARE OUT OF SEQUENCE
REMEDIAL ACTION: resort transactions and rerun job.

MESSAGE: ERROR - INVALID KEY ON WRITE FOR LBT-HDR-RECORD
REMEDIAL ACTION: flush job stream and notify programmer.

MESSAGE: ERROR - NO SPACE AVAILABLE TO WRITE LBT RECORD
REMEDIAL ACTION: more disk space is needed for the file. Reallocate space and rerun job.

jj. WAQC220 - Sample Analysis File Purge

MESSAGE: ERROR - NO PROC RECORDS WERE PROVIDED
REMEDIAL ACTION: obtain PROC record from data entry and rerun job

MESSAGE: ERROR - MORE THAN ONE PROC RECORD SUPPLIED
REMEDIAL ACTION: return PROC records to data entry to determine which, if any, is correct

MESSAGE: ERROR - PROC RECORD CONTAINS AN INVALID DATE
REMEDIAL ACTION: check for keypunch error, if not, return option to data entry

MESSAGE: ERROR - PROC RECORD CONTAINS AN INVALID PURGE DATE
REMEDIAL ACTION: check for keypunck error, if not, return to data entry

MESSAGE: ERROR - PROC RECORD CONTAINS INVALID PRINT CODE
REMEDIAL ACTION: check for keypunch error, if not, return to data entry

MESSAGE: ERROR - RECORD TYPE NOT PROC
REMEDIAL ACTION: check for keypunch error, if not, return to data entry

D. Federal Reporting Subsystem (FEDR)

1. General Description

The Federal Reporting Subsystem (FEDR) is a mandatory subsystem which prcduces two of the four files needed to meet requirements as specified in Section 142.15 of the Interim Primary Drinking Water Regulations that must be sent to EPA by states who assume primary enforcement responsibility. These include:

- Additions or correction to the National Public Water System Inventory;

- All violations of the primary drinking water regulations;

- Prompt reporting of any variance or exemption granted by the state and the status of each of the variances and exemptions.

The purpose of the FEDR Subsystem is to retrieve data elements from the state's files, reformat them, and create a file fcr reporting to EPA. There are two modules; FEDR010 and 020.

2. How to Enter Data

The following instructions are in narrative form to be used as an educational tool for a user who is new to MSIS. A quick reference guide can be found in the Data Entry Instruction Manual for each of the input documents relative to this subsystem. They are arranged numerically by exhibit number.

EXHIBIT NO: FEDR.100
DESCRIPTION: This form is used as the PROC option for program module FEDR010.

-All dates are entered in the same manner; enter the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The default for the reporting period will be one year previous from the date entered in columns 5 thru 10.

-The Postal State Abbreviation should be the abbreviation used by the U.S. Postal Service for the state which is being reported.

Cutput Reports

Each report created by this subsystem is explained in detail, field by field, telling from where the data was obtained and how it was manipulated, if at all. They are arranged numerically by exhibit number.

FEDR010 AND 020 1 OF 1
1/4/77

BUILD MODIFIED PWF MODULE AND BUILD DVF MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT FEDR.300

XXXXXXX ①

DATE XX/XX/XX

MODEL STATE INFORMATION SYSTEM
FEDERAL REPORTING SUBSYSTEM

COMPLETION REPORT

PAGE ZZZZ9

		TOTAL	% RELATIVE TO THE XXXXXXXXXXXXXXXX ②	
③	1. NUMBER OF RECORDS ON THE PUBLIC WATER FILE	ZZZ,ZZZ,ZZ9	1	
	2. NUMBER OF RECORDS ON THE MODIFIED PUBLIC WATER FILE	ZZZ,ZZZ,ZZ9	2	ZZ9 3
④	1. NUMBER OF RECORDS ON THE VIOLATIONS FILE	ZZZ,ZZZ,ZZ9	4	
	2. NUMBER OF VIOLATION RECORDS ON THE DEVIATIONS FILE	ZZZ,ZZZ,ZZ9	5	ZZ9 6
	3. NUMBER OF VARIANCES AND EXEMPTIONS RECORDS ON THE DEVIATIONS FILE	ZZZ,ZZZ,ZZ9	7	
	4. NUMBER OF RECORDS ON THE DEVIATIONS FILE	ZZZ,ZZZ,ZZ9	8	

① - PROGRAM NAME FEDR010 OR FEDR020

② - PERCENT TITLE - PUBLIC WATER FILE FOR FEDR010
OR VIOLATIONS FILE FOR FEDR020

③ - DETAIL LINES TO BE USED FOR FEDR010

④ - DETAIL LINES TO BE USED FOR FEDR020

EXHIBIT NO: FEDR.300 PAGE 1 OF 1

PROGRAM NO: FEDR010 and FEDR020

TITLE: Completion Report

FIELD NO: 1
DESCRIPTION: An accumulation of the number of records on the PWF.

FIELD NO: 2
DESCRIPTION: An accumulation of the number of records on the modified PWF.

FIELD NO: 3
DESCRIPTION: A calculation; number of records on modified PWF divided by number of records on the PWF.

FIELD NO: 4
DESCRIPTION: An accumulation of the number of records on the VIF.

FIELD NO: 5
DESCRIPTION: An accumulation of the number of violation records on the DVF.

FIELD NO: 6
DESCRIPTION: A calculation; number of violation records on the DVF divided by the number of records on the DVF.

FIELD NO: 7
DESCRIPTION: An accumulation of the number of VEF records on the DVF.

FIELD NO: 8
DESCRIPTION: An accumulation of the number of records on the DVF.

4. Error Messages and Remedial Actions

Error messages other than those from the Error Message Table (EMT) and the Standard Error Messages for Processing Options are listed in program number sequence, along with their remedial actions, if any.

a. FEDR010 - Create Modified PWP

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for PROC Records.

MESSAGE: ERROR - TYPE NOT PROC
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new options from data entry and use them to rerun job.

MESSAGE: ERROR - PROC STATE CODE INVALID
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new options from data entry and use them to rerun job.

b. FEDR020 - Create Deviations File

None

E. Standard Processing Subsystem (MSIS)

1. General Description

The Standard Processing Subsystem (MSIS) is a mandatory utility subsystem. It provides all of the other subsystems, except Federal Reporting (FEDR) and Sanitary Survey (SRVY) Subsystems, with edit criteria and error processing. It provides a history file for Enforcement Actions (ENAC), Operator and Mailing (OPER), Variances and Exemptions (VAEX), and the Violations File (VIF) from Water Quality Compliance (WAQC).

2. How to Enter Data

The following instructions are in narrative form to be used as an educational tool for a user who is new to MSIS. A quick reference guide can be found in the Data Entry Instruction Manual for each of the input documents relative to this subsystem. They are arranged numerically by exhibit number.

EXHIBIT NO: MSIS.100
DESCRIPTION: This form is used as the PROC option for program module MSIS050, Standard History Purge.

-All dates are entered in the same manner; enter the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The Purge Date should be the date before which all records should be purged.

-The Report Option simply states whether or not to produce a report of the records that have been purged by this run. Instructions are self-explanatory.

EXHIBIT NO: MSIS.101
DESCRIPTION: This form is used as the PROC option for program modules MSIS030, Standard Tables Creation, and MSIS040. Standard History File Selection.

-The date is used for report headings. Enter the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

EXHIBIT NO: MSIS.102
DESCRIPTION: This form is used as an input transaction to program module MSIS030, Standard Tables Creation, to create the Error Message Table.

-The error code is a three digit number: 001 thru 999. Numbers 001 thru 100 are used for errors which caused an entire transaction to be rejected. Numbers 101 thru 400 are used as warning messages in cases where the value for a single input field is questionable but is still used as valid input. Numbers 401 thru 900 are used when the value of a specific input field is invalid and is not used in the update process. Numbers 901 thru 999 are currently reserved for future use by the state or regional offices at their discretion.

-The Error Message itself has a fixed prefix for each type of message relative tc its code. For all 001 thru 100 messages, begin the message with "REJECT-" followed by the actual message. Fcr all 101 thru 400 messages, begin the message with "WARNING-" followed by the actual message. For all 401 thru 900 messages, begin the message with "INVALID-", followed by the actual message. The 900 series is left to the discretion of the user.

EXHIBIT NO: MSIS.103
DESCRIPTION: This form is used as an input transaction tc program module MSIS030, Standard Tables Creation, to create the Code Value Tables for the various files.

-The File ID denotes which file the code applies to. A list of File ID's can be found in section II,C,1, File Name Abbreviaticns, in the column headed "Mnemonic Prefix".

-The Data Element Catalogue Number is the number of the data element for which this code is being created as it appears in the Data Element Dictionary.

-The Data Element Value is the actual code that the user intends to use. It may be up tc nine characters in length and must be entered starting in the left-most position, column 7.

-The Data Element Length should be the character length of the code entered in the previous field, maximum of nine.

-The Data Element Description is limited to 30 characters and should accurately describe the code being used.

Note: the installation tape has similar transactions on it which will be used to create the necessary Code Value Tables to run MSIS. Any changes or additions will require use of this form.

EXHIBIT NO: MSIS.104
DESCRIPTION: This form is used as an input transaction to program module MSIS030, Standard Tables Creation, to create the Data Element Table.

-The File ID denotes which file the data element comes from. A list of File ID's can be found in section II,C,1 File Name Abbreviations, in the column headed "Mnemonic Prefix".

-The Start Positions are first relative to the transaction, limited to from 1 to 80, and second, relative to the position on the file record. This information may be found under record descriptions, series 200, in the Exhibits Manual which is divided by subsystem.

-The field Length is, first, as the field appears in the file record, and second, as it appears on the input transaction. In most cases, these two numbers will be the same. But for elements such as dates, they are entered in the standard six character, MMDDYY, format and converted to the five character Julian format, YYDDD, in the file record.

-The Mnemonic Name or the data element can be found in the Data Element Dictionary.

-The History Kept field must be determined by the user. It states whether a history record should be kept for any changes to that data element. It should be assumed that all data elements which are requested by EPA to be reported annually should be kept for history. A list of such data elements can be found in the Appendix D of the Data Element Dictionary, or the data elements can be found individually within the dictionary.

EXHIBIT NO: MSIS.106
DESCRIPTION: Refer to section III, User Defined Selection of Information, in this manual for complete instructions. This form will be used with program module MSIS040, Standard History File Selection.

EXHIBIT NO: MSIS.107
DESCRIPTION: Refer to section III, User Defined Selection of Information, in this manual for complete instructions. This form will be used with program module MSIS040, Standard History File Selection.

EXHIBIT NO: MSIS.108
DESCRIPTION: Refer to section IV, User Defined Report Sequencing, in this manual for complete instructions. This form will be used with program module MSIS040, Standard History File Selection.

3. Output Reports

Each report created by this subsystem is explained in detail, field by field, telling from where the data was obtained and how it was manipulated, if at all. They are arranged numerically by exhibit number.

VARIES

1 OF 1
10/28/76

THIS REPORT IS PRODUCED BY ANY MODULE THAT NEEDS AN UPDATE STATISTICS REPORT
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT MSIS.300

1 XXXXXXX ①

DATE XX/XX/XX

2 MODEL STATE INFORMATION SYSTEM
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ②

STANDARD UPDATE STATISTICS REPORT

PAGE ZZZZ9

	TOTAL		% RELATIVE TO THE ORIGINAL FILE	
1. NUMBER OF RECORDS ORIGINALLY ON THE FILE	ZZZ,ZZZ,ZZ9	3		
2. NUMBER OF ACCEPTABLE DATA ENTRY TRANSACTIONS	ZZZ,ZZZ,ZZ9	4		
3. NUMBER OF STANDARD ERROR RECORDS CREATED	ZZZ,ZZZ,ZZ9	5		
4. NUMBER OF RECORDS MODIFIED ON THE FILE	ZZZ,ZZZ,ZZ9	6	ZZZ9 %	7
5. NUMBER OF NEW RECORDS ADDED TO THE FILE	ZZZ,ZZZ,ZZ9	8	ZZZ9 %	9
6. NUMBER OF RECORDS DELETED FROM THE FILE	ZZZ,ZZZ,ZZ9	10	ZZZ9 %	11
7. NUMBER OF RECORDS NOW ON THE FILE	ZZZ,ZZZ,ZZ9	12	ZZZ9 %	13

① PROGRAM NAME

② SUBSYSTEM NAME

EXHIBIT NO: MSIS.300 PAGE 1 OF 2

PROGRAM NO: (System standard)

TITLE: Standard Update Statistics Report

FIELD NO: 1
DESCRIPTION: This field contains the name of the program producing the report.

FIELD NO: 2
DESCRIPTION: This field contains the subsystem name which is producing the report.

FIELD NO: 3
DESCRIPTION: This field contains the total number of records which were originally on the file prior to updating.

FIELD NO: 4
DESCRIPTION: This field contains the total number of transactions accepted for processing this run.

FIELD NO: 5
DESCRIPTION: This field contains the total number of records which were in error this run. These records are passed to the Standard Error File (SEF) for processing.

FIELD NO: 6
DESCRIPTION: This field contains the total number of records which were modified this run.

FIELD NO: 7
DESCRIPTION: A calculation: the number of records modified divided by the number of records originally on the file.

FIELD NO: 8
DESCRIPTION: This field contains the total number of records which were added to the file this run.

FIELD NO: 9
DESCRIPTION: A calculation: the number of records added divided by the number of records originally on the file.

FIELD NO: 10
DESCRIPTION: This field contains the total number of records which were deleted from the file this run.

PROGRAM NO: (System standard)

TITLE: Standard Update Statistics Report

FIELD NO: 11
DESCRIPTION: A calculation: the number of records deleted divided by the number of records originally on the file.

FIELD NO: 12
DESCRIPTION: This field contains the total number of records now on the file after being modified by this run.

FIELD NO: 13
DESCRIPTION: A calculation: the number of records now on file divided by the number of records originally on the file.

MSIS020 1 OF 1
10/13/76

SHF MAINTENANCE MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT MSIS.301

MSIS020 MODEL STATE INFORMATION SYSTEM
STANDARD PROCESSING SUBSYSTEM

DATE XX/XX/XX UPDATE REPORT FOR XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ① PAGE ZZZZ9
OPTION: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ②

ID FILE/RECORD		LAST UPDATE	CURRENT UPDATE	DATA ELEMENT MNEMONIC	DATA ELEMENT CAT NUM	DATA ELEMENT HISTORY	OLD VALUE	NEW VALUE
XX	XXXXX	XX/XX/XX	XX/XX/XX	XXXXXXXXXX	XXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1	2	3	4	5	6	7	8	9

① X'S WILL BE REPLACED BY ONE OF THE FOLLOWING:

A. VIOLATIONS FILE
B. VARIANCES AND EXEMPTIONS FILE
C. ENFORCEMENT ACTIONS FILE
D. OPERATOR AND MAILING FILE

② X'S WILL BE REPLACED BY ONE OF THE FOLLOWING:

A. CURRENT RECORDS UPDATE REPORT
B. CURRENT FILE RECORDS REPORT
C. ENTIRE MSIS HISTORY REPORT
D. NO DETAIL REPORT

EXHIBIT NO: MSIS.301 PAGE 1 OF 1

PROGRAM NO: MSIS020

TITLE: Update Report for Subsystem

FIELD NO: 1
CATALOGUE NO: 301
DATA ELEMENT NAME: SHF-FILE-ID
DESCRIPTION: Designates from which file the Standard History record comes.

FIELD NO: 2
CATALOGUE NO: 302
DATA ELEMENT NAME: SHF-RECORD-ID
DESCRIPTION: A unique code from the originating record.

FIELD NO: 3
CATALOGUE NO: 305
DATA ELEMENT NAME: SHF-LAST-UPDATE-DATE
DESCRIPTION: Date on which the record was last updated, converted from Julian format.

FIELD NO: 4
CATALOGUE NO: 304
DATA ELEMENT NAME: SHF_CUR_UPDATE_DATE
DESCRIPTION: Date on which this record was updated, converted from Julian format.

FIELD NO: 5
CATALOGUE NO: 292
DATA ELEMENT NAME: DET-MNEMONIC-NAME
DESCRIPTION: Mnemonic name of the data element.

FIELD NO: 6
CATALOGUE NO: 303
DATA ELEMENT NAME:SHF-CATALOGUE-NO
DESCRIPTION: Data element catalogue number.

FIELD NO: 7
CATALOGUE NO: 293
DATA ELEMENT NAME: DET-HISTORY-CODE
DESCRIPTION: Code to indicate whether or not the record is to be kept on the SHF.

FIELD NO: 8
CATALOGUE NO: 306
DATA ELEMENT NAME: SHF-OLD-VALUE
DESCRIPTION: Value of the data element before the update.

FIELD NO: 9
CATALOGUE NO: 307
DATA ELEMENT NAME: SHF-NEW-VALUE
DESCRIPTION: Value of the data element after the update.

MSIS030 1 OF 1
10/15/76

STANDARD TABLES CREATION
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT MSIS.302

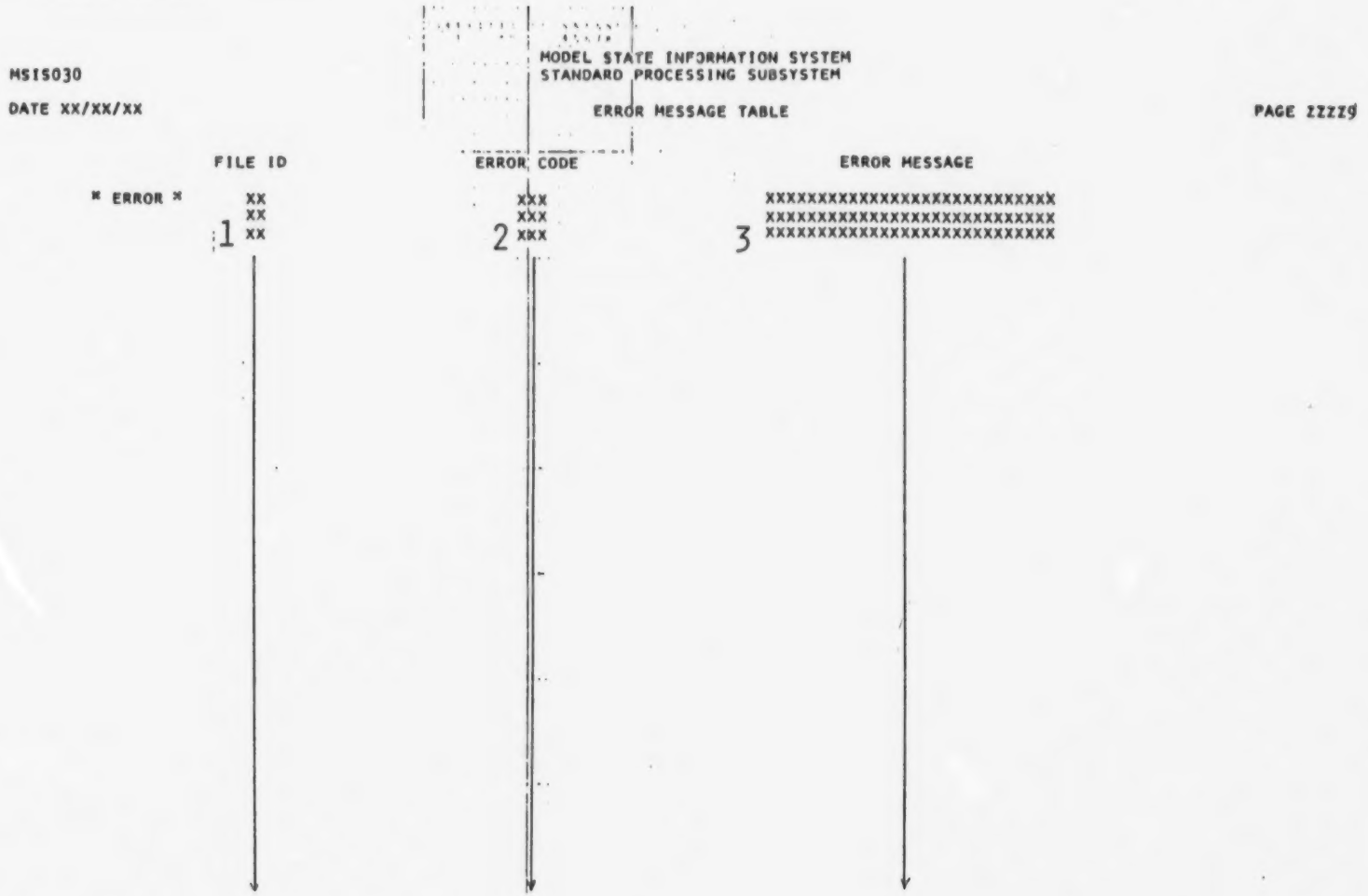


EXHIBIT NO: MSIS.302 PAGE 1 OF 1

PROGRAM NO: MSIS030

TITLE: Error Message Table

FIELD NO: 1
CATALOGUE NO: 295
DATA ELEMENT NAME: EMT-FILE-ID
DESCRIPTION: The identification code of the file that uses the error message.

FIELD NO: 2
CATALOGUE NO: 296
DATA ELEMENT NAME: EMT-ERROR-CODE
DESCRIPTION: A three digit code used in programs to associate the code to the message.

FIELD NO: 3
CATALOGUE NO: 297
DATA ELEMENT NAME: EMT-ERROR-MESSAGE
DESCRIPTION: The actual error message as related to the code.

MSIS030

1 OF 1
10/15/76

STANDARD TABLES CREATION
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT MSIS.303

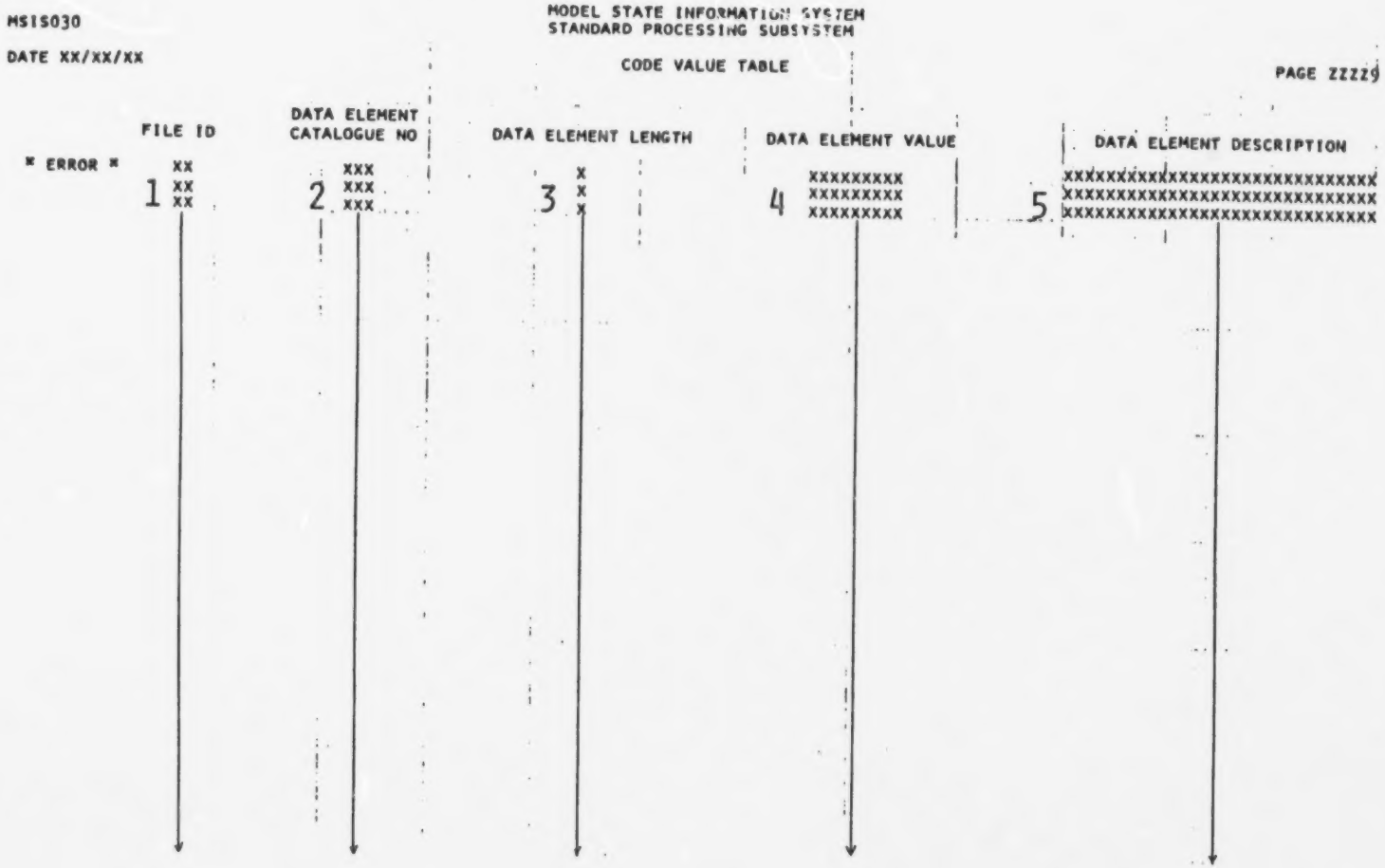


EXHIBIT NO: MSIS.303 PAGE 1 OF 1

PROGRAM NO: MSIS030

TITLE: Code Value Table

FIELD NO: 1 CATALOGUE NO: 280	DATA ELEMENT NAME: CVT-FILE-ID DESCRIPTION: The identification code of the file that uses this code value.
FIELD NO: 2 CATALOGUE NO: 281	DATA ELEMENT NAME: CVT-CATALOGUE-NO DESCRIPTION: The unique three digit number used to identify the data element im the data element dictionary and in the CVT and DET.
FIELD NO: 3 CATALOGUE NO: 283	DATA ELEMENT NAME: CVT-DATA-LENGTH DESCRIPTION: The maximum length of the acceptable values of the data element.
FIELD NO: 4 CATALOGUE NO: 282	DATA ELEMENT NAME: CVT-DATA-EL-VALUE DESCRIPTION: An acceptable value for the data element.
FIELD NO: 5 CATALOGUE NO: 284	DATA ELEMENT NAME: CVT-DATA-EL-DESC DESCRIPTION: Description of the specific value of the data element.

MSIS030

1 OF 1
10/5/76

STANDARD TABLES CREATION MODULE

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT MSIS.304

MSIS030

MODEL STATE INFORMATION SYSTEM
STANDARD PROCESSING SUBSYSTEM

DATE XX/XX/XX

DATA ELEMENT TABLE

PAGE ZZZZ9

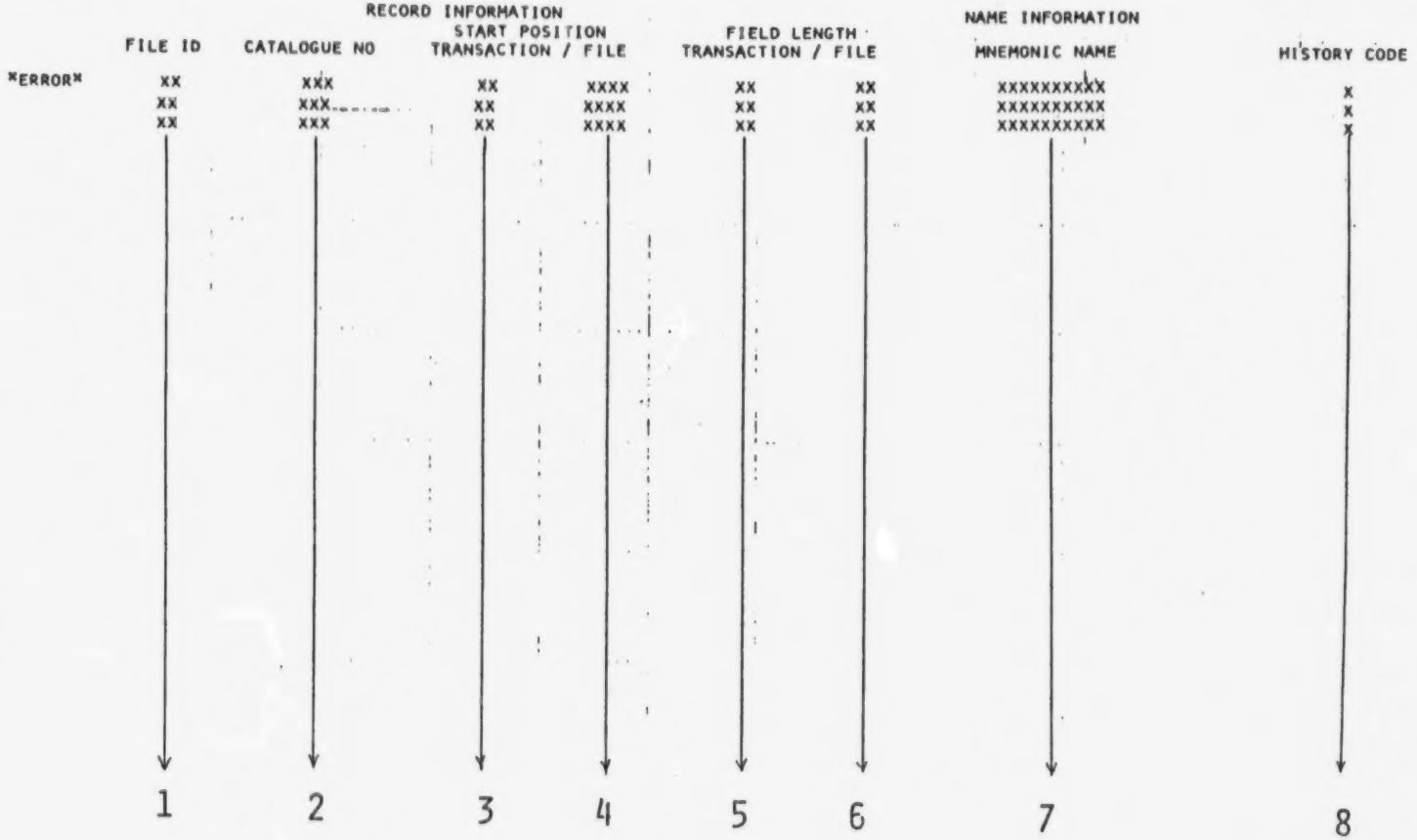


EXHIBIT NO: MSIS.304 PAGE 1 OF 1

PROGRAM NO: MSIS030

TITLE: Data Element Table

FIELD NO: 1
CATALOGUE NO: 286
DATA ELEMENT NAME: DET-FILE-ID
DESCRIPTION: The identification code of the file that contains this data element.

FIELD NO: 2
CATALOGUE NO: 287
DATA ELEMENT NAME: DET-CATALOGUE-NO
DESCRIPTION: The unique three digit number used to identify the data element in the Data Element Dictionary and in the CVT and DET.

FIELD NO: 3
CATALOGUE NO: 288
DATA ELEMENT NAME: DET-START-POSITION
DESCRIPTION: The relative starting position of the data element on its respective input transaction.

FIELD NO: 4
CATALOGUE NO: 289
DATA ELEMENT NAME: DET-FILE-START-POSITION
DESCRIPTION: The relative starting position of the data element as it appears on its respective file.

FIELD NO: 5
CATALOGUE NO: 290
DATA ELEMENT NAME: DET-DATA-LENGTH
DESCRIPTION: The maximum data length of the data element on its respective file.

FIELD NO: 6
CATALOGUE NO: 291
DATA ELEMENT NAME: DET-INPUT-LENGTH
DESCRIPTION: The maximum data length of the data element on its respective input transaction.

FIELD NO: 7
CATALOGUE NO: 292
DATA ELEMENT NAME: DET-MNEMONIC-NAME
DESCRIPTION: The mnemonic name of the data element.

FIELD NO: 8
CATALOGUE NO: 293
DATA ELEMENT NAME: DET-HISTORY-CODE
DESCRIPTION: A flag used to indicate whether or not the data element is kept on the SHF or PHF.

MSIS050 1 of 1
10/15/76

SHF PURGE MODULE
SouthWestern Ohio Regional Computer Center
EXHIBIT MSIS.305

MSIS050 MODEL STATE INFORMATION SYSTEM
STANDARD PROCESSING SUBSYSTEM

DATE XX/XX/XX PURGE OF THE STANDARD HISTORY FILE
PURGE DATE: XX/XX/XX

	ID FILE/RECORD		LAST UPDATE	CURRENT UPDATE	------ DATA ELEMENT ------ MNEMONIC	CATALOGUE NUMBER	OLD VALUE	NEW VALUE
RECORD 1	XX	XXXXX	XX/XX/XX	XX/XX/XX	XXXXXXXXXX	XXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
RECORD 2	XX	XXXXX	XX/XX/XX	XX/XX/XX	XXXXXXXXXX	XXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	XX	XXXXX	XX/XX/XX	XX/XX/XX	XXXXXXXXXX	XXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	1	2	3	4	5	6	7	8

FIELD NO:
DESCRIPTION:
EXHIBIT NO: MSIS.305 PAGE 1 OF 1

PROGRAM NO: MSIS050

TITLE: Purge of the Standard History File

FIELD NO: 1 DATA ELEMENT NAME: SHF-FILE-ID
CATALOGUE NO: 301 DESCRIPTION: Designates from which file the Standard History record comes.

FIELD NO: 2 DATA ELEMENT NAME: SHF-RECORD-ID
CATALOGUE NO: 302 DESCRIPTION: A unique code from the originating record.

FIELD NO: 3 DATA ELEMENT NAME: SHF-LAST-UPDATE-DATE
CATALOGUE NO: 305 DESCRIPTION: Date on which the record was last updated, converted from Julian format.

FIELD NO: 4 DATA ELEMENT NAME: SHF-CUR-UPDATE-DATE
CATALOGUE NO: 304 DESCRIPTION: Date on which this record was updated, converted from Julian format.

FIELD NO: 5 DATA ELEMENT NAME: DET-MNEMONIC-NAME
CATALOGUE NO: 292 DESCRIPTION: Mnemonic name of the data element.

FIELD NO: 6 DATA ELEMENT NAME: SHF-CATALOGUE-NO
CATALOGUE NO: 303 DESCRIPTION: Data element catalogue number of the updated data element.

FIELD NO: 7 DATA ELEMENT NAME: SHF-CLD-VALUE
CATALOGUE NO: 306 DESCRIPTION: Value of the data element before the update.

FIELD NO: 8 DATA ELEMENT NAME: SHF-NEW-VALUE
CATALOGUE NO: 307 DESCRIPTION: Value of the data element after the update.

MSIS040 1 OF 1
10/14/76

SHF SELECTION MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT MSIS.306

1 XXXXXXX ②

MODEL STATE INFORMATION SYSTEM
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ①

DATE XX/XX/XX

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ③

PAGE ZZZZ9

3

SORT SEQUENCE

	MNEMONIC NAME	SORT MODE
1.	XXXXXXXXXX	X
2.	XXXXXXXXXX	X
10.	XXXXXXXXXX	X

4 5

RELATION SYMBOLS: LT = LESS THAN NL = NOT LESS THAN EQ = EQUALS
GT = GREATER THAN NG = NOT GREATER THAN NX = NOT EXISTS (EMPTY)

SELECTION CRITERIA

	MNEMONIC	SYMBOL	VALUE		MNEMONIC	SYMBOL	VALUE	
1.	XXXXXXXXXX	XX	XXXXXXXXXXXXXXX	AND	XXXXXXXXXX	XX	XXXXXXXXXXXXXXX	AND
	XXXXXXXXXX	XX	XXXXXXXXXXXXXXX	AND	...			

6 7 8

* RECORDS SELECTED 9ZZZ,ZZ9

2. XXXXXXXXXX XX XXXXXXXXXXXXXXX

* RECORDS SELECTED ZZZ,ZZ9

** TOTAL RECORDS SELECTED ZZZ,ZZ9 % OF WHICH WAS SELECTED ZZ9 %

10 11

EXHIBIT NO: MSIS.306 PAGE 1 OF 2

PROGRAM NO: MSIS040

TITLE: Selection Statistics

FIELD NO: 1
DESCRIPTION: This field contains the name of the program producing the report.

FIELD NO: 2
DESCRIPTION: This field contains the name of the subsystem producing the report.

FIELD NO: 3
DESCRIPTION: This field contains the title of the report, "Selection Statistics."

FIELD NO: 4
DESCRIPTION: This field contains a mnemonic name of a data element to be used in sorting records. A maximum of 30 can be listed. They are in sequential order beginning with the primary sort field.

FIELD NO: 5
DESCRIPTION: This field contains the sort mode, either an A for ascending or a D for descending, to be used for sorting each field named under mnemonic name (Field No. 4).

FIELD NO: 6
DESCRIPTION: This field contains a mnemonic name of a field being used to determine selection of records.

FIELD NO: 7
DESCRIPTION: The relational symbol which determines how a given record's field value is to be compared with the selection criteria value (Field No. 8).

FIELD NO: 8
DESCRIPTION: The value against which the selected field of the records is compared.

FIELD NO: 9
DESCRIPTION: The total number of records selected using that particular selection criteria.

FIELD NO: 10
DESCRIPTION: This field contains the total of all records selected in this run.

PROGRAM NO: MSIS040

TITLE: Selection Statistics

FIELD NO: 11
DESCRIPTION: A calculation: the number of records selected divided by the total number of records on the file.

MSIS040 1 OF 1
10/14/76

SHF SELECTION MODULE

. SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT MSIS.307

MODEL STATE INFORMATION SYSTEM

MSIS040

STANDARD HISTORY PROCESSING

DATE XX/XX/XX SELECTION OF THE STANDARD HISTORY FILE PAGE ZZZZ9

	ID FILE/RECORD	LAST UPDATE	CURRENT UPDATE	DATA ELEMENT MNEMONIC	DATA ELEMENT CATALOGUE NUMBER	OLD VALUE	NEW VALUE
RECORD 1	XX XXXXX	XX/XX/XX	XX/XX/XX	XXXXXXXXXX	XXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
RECORD 2	XX XXXXX	XX/XX/XX	XX/XX/XX	XXXXXXXXXX	XXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	1 2	3	4	5	6	7	8

EXHIBIT NO: MSIS.307 PAGE 1 OF 1

PROGRAM NO: MSIS040

TITLE: Selection of the Standard History File

FIELD NO: 1 CATALOGUE NO: 301	DATA ELEMENT NAME: SHF-FILE-ID DESCRIPTION:	Designates from which file the Standard History record comes.
FIELD NO: 2 CATALOGUE NO: 302	DATA ELEMENT NAME: SHF-RECORD-ID DESCRIPTION:	A unique code from the originating record.
FIELD NO: 3 CATALOGUE NO: 305	DATA ELEMENT NAME: SHF-LAST-UPDATE-DATE DESCRIPTION:	Date on which the record was last updated, converted from Julian format.
FIELD NO: 4 CATALOGUE NO: 304	DATA ELEMENT NAME: SHF-CUR-UPDATE-DATE DESCRIPTION:	Date on which this record was updated, converted from Julian format.
FIELD NO: 5 CATALOGUE NO: 292	DATA ELEMENT NAME: DET-MNEMONIC-NAME DESCRIPTION:	Mnemonic name of the data element.
FIELD NO: 6 CATALOGUE NO: 303	DATA ELEMENT NAME: SHF-CATALOGUE-NO DESCRIPTION:	Data element catalogue number.
FIELD NO: 7 CATALOGUE NO: 306	DATA ELEMENT NAME: SHF-OLD-VALUE DESCRIPTION:	Value of the data element before the update.
FIELD NO: 8 CATALOGUE NO: 307	DATA ELEMENT NAME: SHF-NEW-VALUE DESCRIPTION:	Value of the data element after the update.

MSIS030 1 OF 1
10/5/76

STANDARD TABLES CREATION MODULE
. SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT MSIS.308

MODEL STATE INFORMATION SYSTEM
STANDARD PROCESSING SUBSYSTEM

MSIS030 ERROR IN CARD CODE PAGE ZZZZ9

DATE XX/XX/XX

ERROR XXXX

EXHIBIT NO: MSIS.308 PAGE 1 OF 1

PROGRAM NO: MSIS030

TITLE: Standard Tables Creation Error Report

FIELD NO: 1
DESCRIPTION: Indicates error in card entry.

FIELD NO: 2
DESCRIPTION: Image of card in error.

MSIS010 1 OF 1

10/28/76

STANDARD ERROR PROCESSING

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT MSIS.309

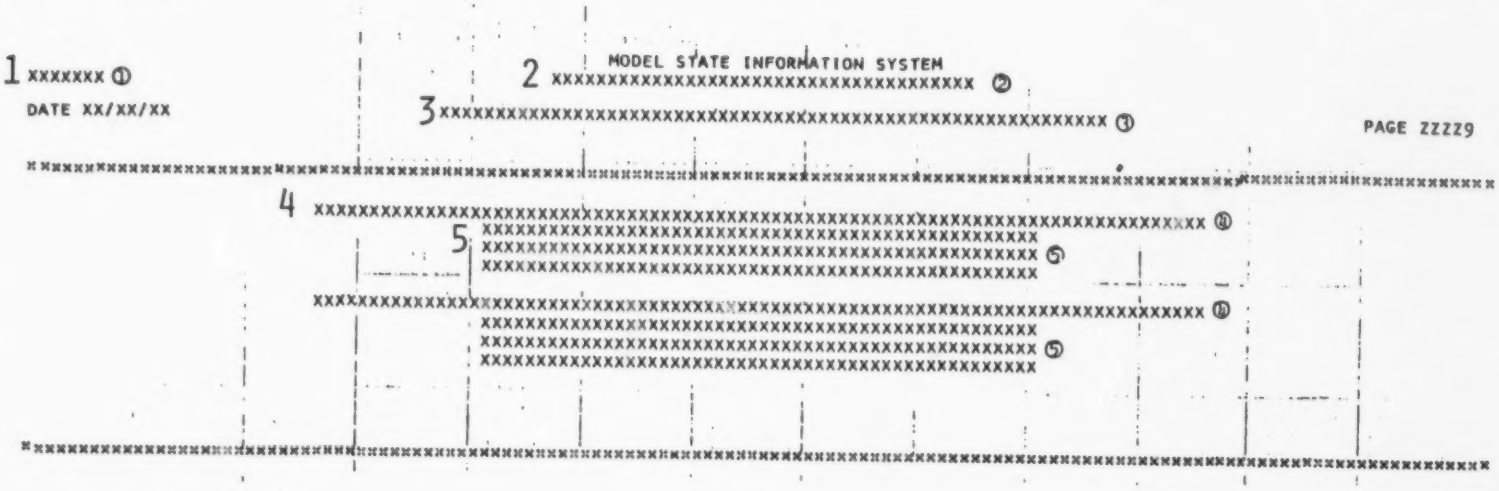

1 XXXXXXX ①
DATE XX/XX/XX
MODEL STATE INFORMATION SYSTEM
2 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ②
3 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ③
PAGE ZZZZ9
4 XXXXXXXXXXXXXXXXXXXX

EXHIBIT NO: MSIS.309 PAGE 1 OF 1

PROGRAM NO: (System Standard)

TITLE: This report format is generated whenever a processing option record contains an error. Its title is dependant upon the module producing the report.

FIELD NO: 1
DESCRIPTION: The name of the program producing the report.

FIELD NO: 2
DESCRIPTION: The name of the subsystem producing the report.

FIELD NO: 3
DESCRIPTION: The title of the report which would have been produced had there been no errors in the processing option(s).

FIELD NO: 4
DESCRIPTION: The image of the processing options record that contains an error.

FIELD NO: 5
DESCRIPTION: The error message(s) associated with each record in error. One message is produced for each error on the record.

This report is produced by several modules that require a warning report.
SouthWestern Ohio Regional Computer Center
EXHIBIT MSIS.310

1 XXXXXXX ①

2 MODEL STATE INFORMATION SYSTEM
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ②

DATE XX/XX/XX

***** STANDARD WARNING REPORT ******

PAGE ZZZZ9

RECORD ID	DATA ELEMENT NAME	WARNING MESSAGE
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3	4	5

350

① Program Name

② Subsystem Name

EXHIBIT NO: MSIS.310 PAGE 1 OF 1

PROGRAM NO: (System Standard)

TITLE: Standard Warning Report

FIELD NO: 1
DESCRIPTION: The name of the program producing the report.

FIELD NO: 2
DESCRIPTION: The subsystem name which is producing the report.

FIELD NO: 3
DESCRIPTION: The record ID, a unique record identifier.

FIELD NO: 4
DESCRIPTION: The name of the data element which caused the warning.

FIELD NO: 5
DESCRIPTION: A message which explains the warning. A warning does not cause a job to be terminated or a record to be dropped.

VARIES

1 of 1
10/14/76

THE REPORT IS PRODUCED BY SEVERAL MODULES THAT REQUIRE A SORT SEQUENCE REPORT.
SouthWestern Ohio Regional Computer Center
EXHIBIT MSIS.311

1 XXXXXXX ①
DATE XX/XX/XX

2 MODEL STATE INFORMATION SYSTEM
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ②
STANDARD SORT SEQUENCE REPORT

PAGE ZZZZ9

SORT SEQUENCE

	MNEMONIC NAME	SORT MODE
1.	XXXXXXXXXX	X
2.	XXXXXXXXXX	X
3.	XXXXXXXXXX	X
4.	XXXXXXXXXX	X
5.	XXXXXXXXXX	X
6.	XXXXXXXXXX	X
7.	XXXXXXXXXX	X
8.	XXXXXXXXXX	X
9.	XXXXXXXXXX	X
10.	XXXXXXXXXX	X
	3	4

352

① PROGRAM NAME

② SUBSYSTEM NAME

EXHIBIT NO: MSIS.311 PAGE 1 OF 1

PROGRAM NO: (System Standard)

TITLE: Standard Sort Sequence Report

FIELD NO: 1
DESCRIPTION: The name of the program producing the report.

FIELD NO: 2
DESCRIPTION: The name of the subsystem which is producing the report.

FIELD NO: 3
DESCRIPTION: The mnemonic name of a data element to be used in sorting records. A maximum of 30 can be listed. They are in sequential order beginning with the primary sort field.

FIELD NO: 4
DESCRIPTION: The sort mode, either A for ascending or D for descending, to be used for sorting each field named under mnemonic name (field 3).

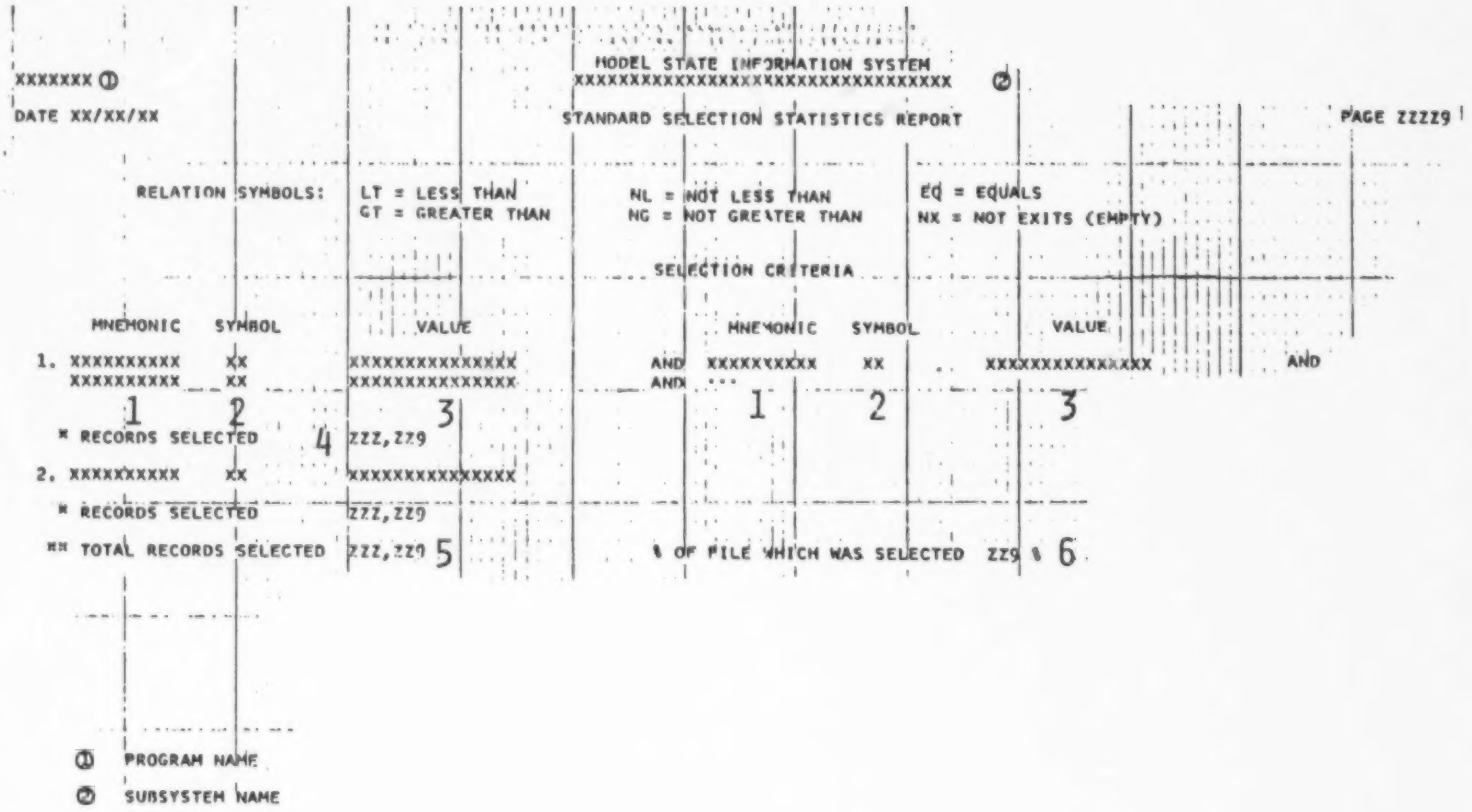
VARIES

1 OF 1

10/15/76

THIS REPORT IS PRODUCED BY ANY MODULE THAT NEEDS A SELECTION STATISTICS REPORT.
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT MSIS.312



① PROGRAM NAME

② SUBSYSTEM NAME

EXHIBIT NO: MSIS.312 PAGE 1 OF 1

PROGRAM NO: (System Standard)

TITLE: Standard Selection Statistics Report

FIELD NO: 1
DESCRIPTION: The mnemonic name as it appears on the SEL1 record.

FIELD NO: 2
DESCRIPTION: The relational symbol corresponding to the mnemonic name as it appears on the SEL2 record.

FIELD NO: 3
DESCRIPTION: The comparative value corresponding to the mnemonic name and relational symbol as it appears on the SEL1 record.

FIELD NO: 4
DESCRIPTION: The number of records selected for the above condition.

FIELD NO: 5
DESCRIPTION: The total number of records selected for all conditions listed above.

FIELD NO: 6
DESCRIPTION: A calculation: the total number of records selected divided by the total number of records on the input file.

MSIS010 1 OF 1
11/18/76

STANDARD ERROR PROCESSING MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT MSIS.313

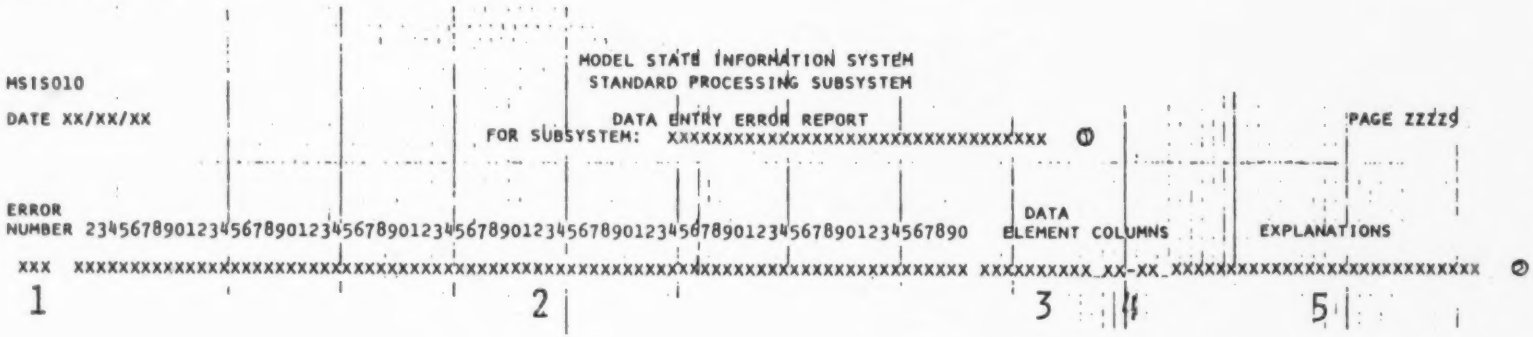

MODEL STATE INFORMATION SYSTEM
STANDARD PROCESSING SUBSYSTEM
MSIS010
DATE XX/XX/XX
DATA ENTRY ERROR REPORT
PAGE ZZZZ9
FOR SUBSYSTEM: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ①
ERROR NUMBER
DATA ELEMENT COLUMNS
EXPLANATIONS
XXX XXXXXXXXXXXXXXXXXXXX

EXHIBIT NO: MSIS.313 PAGE 1 OF 1

PROGRAM NO: MSIS010

TITLE: Data Entry Error Report

FIELD NO: 1
DESCRIPTION: Consecutively numbered error.

FIELD NO: 2
DESCRIPTION: Image of card in error; PROC has option to print only the field in error along with transaction number and card code. Error codes 001 - 100 will automatically print entire transaction.

FIELD NO: 3 DATA ELEMENT NAME: DET-MNEMONIC-NAME
CATALOGUE NO: 292 DESCRIPTION: Mnemonic name of field in error; if no match to DET, the catalogue number will print.

FIELD NO: 4 DATA ELEMENT NAME: DET-START-POSITION
CATALOGUE NO: 288 DESCRIPTION: The relative starting position of the field in the input transaction.

FIELD NO: 4 DATA ELEMENT NAME: DET-INPUT-LENGTH
CATALOGUE NO: 291 DESCRIPTION: Used to calculate end position; ((DET-START-POSITION + DET-INPUT-LENGTH) - 1).

FIELD NO: 5 DATA ELEMENT NAME: EMT-ERROR-MESSAGE
CATALOGUE NO: 297 DESCRIPTION: Error message corresponding to the error code.

4. Error Messages and Remedial Actions

Error messages other than those from the Error Message Table (EMT) and the Standard Error Messages for Processing Options are listed in program number sequence, along with their remedial actions, if any.

a. MSIS010 - Standard Error Processing

MESSAGE: ERROR - FIRST RECORD NOT PROCESSING OPTIONS
REMEDIAL ACTION: Obtain processing options from data entry and rerun job

MESSAGE: ERROR - ERROR MESSAGE TABLE WAS NOT LOADED
REMEDIAL ACTION: Errors occurred in processing. Notify programmer before rerunning job.

MESSAGE: ERROR - ERROR MESSAGE TABLE HAS BEEN EXCEEDED
REMEDIAL ACTION: Program must be changed to accomodate extra error messages. Notify programmer.

MESSAGE: ERROR - DATA ELEMENT TABLE HAS BEEN EXCEEDED
REMEDIAL ACTION: Program must be changed to accomodate extra DET records. Notify programmer.

b. MSIS020 - Standard History File Maintenance

MESSAGE: ERROR - PROCESSING OPTIONS DATE ERROR
REMEDIAL ACTION: Check for keypunch error, if not, return to data entry

MESSAGE: ERROR - PROCESSING OPTIONS CARD MISSING
REMEDIAL ACTION: Obtain PROC record from data entry and rerun job

MESSAGE: ERROR - FIRST RECORD IS NOT PROCESSING OPTION
REMEDIAL ACTION: If there is a PROC record, make sure it is spelled correctly. If it is not present, obtain a PROC record from data entry. If there has been a keypunch error, correct and rerun job.

c. MSIS030 - Standard Tables Creation

MESSAGE: ERROR - ERROR IN CARD CODE
REMEDIAL ACTION: Check for keypunch error, if not, return to data entry to make corrections before rerunning job.

MESSAGE: ERROR - PROCESSING OPTION DATE ERROR
REMEDIAL ACTION: Check for keypunch error, if not, return to data entry to make correction before rerunning job.

MESSAGE: ERROR - PROCESSING OPTION ID ERROR
REMEDIAL ACTION: Check for keypunch error, if not, return to data entry to make correction before rerunning job.

MESSAGE: ERROR - PROCESSING OPTION CARD MISSING
REMEDIAL ACTION: Obtain PROC record from data entry and rerun job.

MESSAGE: ERROR - FIRST RECORD IS NOT PROCESSING OPTION
REMEDIAL ACTION: If there is a PROC record, make sure it is spelled correctly. If it is not present, obtain a PROC record from data entry. If there has been a keypunch error, correct and rerun job.

e. MSIS040 - Standard History File Selection

Any error messages that do not appear below can be found in Standard Error Messages Remedial Actions for PROC Records and SEL1 & SEL2 Records.

MESSAGE: ERROR - NO SH DATA ELEMENT TABLE WAS PROVIDED
REMEDIAL ACTION: Mount Standard History DET and rerun job.

d. MSIS050 - Standard History File Purge

MESSAGE: ERROR - PROCESSING OPTION ID ERROR

REMEDIAL ACTION: Check for keypunch error, if not, return to data entry for correction before rerunning job.

MESSAGE: ERROR - PROCESSING OPTION DATE ERROR

REMEDIAL ACTION: Check for keypunch error, if not, return, to data entry for correction before rerunning job.

MESSAGE: ERROR - PROCESSING OPTION PURGE DATE ERROR

REMEDIAL ACTION: Check for keypunch error, if not, return to data entry for correction before rerunning job.

MESSAGE: ERROR - PROCESSING OPTION CARD MISSING

REMEDIAL ACTION: Obtain PROC card from data entry and rerun job.

F. Variances and Exemptions Subsystem (VAEX)

1. General Description

The Variances and Exemptions Subsystem (VAEX) authorizes States with primary enforcement responsibility to grant variances and exemptions from two types of requirements: maximum contaminant limits and required treatment techniques. The interim regulations do not contain any requirements with respect to treatment techniques; however, this type of requirement may be added at a later date when the interim regulations are revised. For States that have not qualified for primary enforcement responsibility, the EPA region is authorized to grant variances and exemptions.

Variances and exemptions may not be granted if to do so would result in an "unreasonable risk to health". EPA has indicated that this is to be interpreted to mean that no variances or exemptions from bacteriological Maximum Contaminant Levels (MCL's), should be permitted. Variances and exemptions, therefore, will probably be permitted only from the chemical contaminant levels.

Variances and exemptions both have essentially the same result. Both effectively exempt a Public Water System (PWS), from one or more requirements of the regulations in the two specific areas noted above. The difference lies in the circumstances under which they may be granted and the length of time allowed for compliance.

A. Variances

1. A variance from a maximum contaminant limit may be granted if a PWS is unable to comply because it is unable to make its raw water source safe for technological reasons. For example, many water systems in the southern part of Virginia draw their water from sources containing a naturally high concentration of fluoride. These systems will probably have to find an alternative source of water either by building a new treatment plant at another location or purchasing their water from a safe supplier. Until they are able to locate an alternative source and build the necessary treatment facilities or locate a safe supplier, they will need a variance from the fluoride contaminant limit.

2. A variance from the required treatment technique may be granted if a PWS can demonstrate that the treatment is not required because of the high quality of its raw water. In this case, the raw

water is naturally free from a particular type of contaminant or contains low enough levels that it is unnecessary to treat it for that particular type of contaminant.

The first type of variance will be terminated when the system comes into compliance with the standard. The second type may be terminated at any time upon a finding that the nature of the raw water sources has changed to the extent that treatment is required. In effect, both types of variances will be granted for indefinite time periods with no legislated termination date.

B. Exemptions

Exemptions may be granted to PWS's that are unable to comply for compelling reasons, mainly economic ones. In other words, an exemption is designed to solve the problem of systems that cannot afford to apply available treatment technology rather than the problem of systems that cannot make their water safe with even the best available treatment technology. Exemptions address an economic problem, variances a technical problem. Unlike variances, moreover, exemptions cannot be granted for indefinite time periods. The act itself states that compliance must occur by certain dates.

Exemptions are clearly aimed at the economic problems of smaller systems. The states or regions can use exemptions to give smaller systems additional time to comply with the regulations, but the Act contains specific cutoff dates by which these systems must be in compliance regardless of the cost.

If a variance or exemption is granted, the state or EPA region must prescribe a schedule for compliance and interim control measures within one year of the date it is granted. The state or region must monitor actual progress against this schedule in the same way that it has to monitor compliance with the main body of drinking water regulations.

2. How to Enter Data

The following instructions are in narrative form to be used as an educational tool for a user who is new to MSIS. A quick reference guide can be found in the Data Entry Instruction Manual for each of the input documents relative to this subsystem. They are arranged numerically by exhibit number.

EXHIBIT NO: VAEX.100

DESCRIPTION: This form is used with program module VAEX010, Data Entry and Update. It contains information for the creation of up to nine cards or records.

-In all instances, the V&S Identification should be entered.

-Card code "00" is only used when the user is creating a new record. If the transaction is to be a change to an existing record, then coding should begin with card code "01" and beyond.

-Enter the seven digit PWS ID of the PWS for which the variance or exemption was granted.

-In column 15, enter a "V" if this is a variance, enter an "E" if this is an exemption.

-If this is a revised version of a variance or exemption, enter the number of the previous one.

-The Effective Date and the Expiration Date should be entered in the same manner: code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-A list of Reason Codes can be found in Appendix B of the Data Element Dictionary.

-Enter the Contaminant ID of the contaminant for which the variance or exemption was granted. A list of the ID's can be found in Appendix B of the Data Element Dictionary.

-Enter the MCL which was assigned by the variance or exemption. Note that the decimal point should not be coded, just the numbers. The number of decimal places relative to the number should be coded in column in column 45.

-Enter the code to describe the Treatment for which the variance or exemption was granted. A list of the codes can be found in Appendix B of the Data Element Dictionary.

-Enter the code for the Alternate Treatment to be used as stated by the variance or exemption.

-Card codes "02" thru "09" can be used at the discretion of the user to describe the facts of the case. All of them need not be used, but no more than those may be used.

EXHIBIT NO: VAEX.101
DESCRIPTION: This form is used with program module VAEX010, Data Entry and Update. It contains information for the creation of up to six cards or records.

-In all instances, the V&E Identification, Target Date, and Milestone Code should be entered.

-The Target Date should be coded as the two-digit month under the "M", the two-digit day under the "D", the last two digits of the year under the "Y".

-The Milestone Code can be found in Appendix B of the Data Element Dictionary.

-The Reporting Frequency for repeating milestones is entered in the number of months between repetitions.

-The Milestone Description can use up to four lines to describe the milestone. All four need not be used, but no more than four may be used for one milestone.

-The Date Attained should be coded as the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-A list of Delay/Deletion codes can be found in Appendix B of the Data Element Dictionary.

EXHIBIT NO: VAEX.102
DESCRIPTION: This form is used with program module VAEX010. It contains all the Standard Error, Standard History, and Report Options necessary for the entire job stream.

-All dates are entered in the same format: the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The PROC Date will be used in the report heading as well as the default date for the Compliance Period and Compliance In Arrears Date.

-There are two Standard Error Processing Options. The first is used to indicate whether or not a special output file of error records will be produced. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices. The second option is used to determine whether the entire transaction should be printed on the error report or only those fields which are in error. The instructions are self-explanatory.

-The Standard History Processing Option is self-explanatory.

-The Report Options simply state whether or not the reports are to be produced.

EXHIBIT NO: VAEX.103
DESCRIPTION: Refer to section IV, User Defined Report Sequencing, in this manual for complete instructions. This form will be used with program module VAEX040.

EXHIBIT NO: VAEX.104
DESCRIPTION: This form is used with program module VAEX040, VSF Selection. It contains options that will be passed to other modules to create reports.

-The date is coded as the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The report options simply state whether or not to produce the reports from the selected records.

EXHIBIT NO: VAEX.105
DESCRIPTION: Refer to section III, User Defined Selection of Information, in this manual for complete instructions. This form will be used with program module VAEX040.

EXHIBIT NO: VAEX.107
DESCRIPTION: This form is used with program module VAEX010, Data Entry and Update. It contains extended case abstract information in addition to that which is contained on Exhibit VAEX.100.

-In all instances the V&E Identification should be entered.

-Card codes "10" thru "17" can be used at the discretion of the user to describe the facts of the case. All of them need not be used, but no more than those may be used.

-For card code "99" a "Y" must be entered if the record is to be deleted from the VEF. If no "Y" is entered, the record will not be deleted.

3. Output Reports

Each report created by this subsystem is explained in detail, field by field, telling from where the data was obtained and how it was manipulated, if at all. They are arranged numerically by exhibit number.

VAEX020

1 OF 1
10/18/76

COMPLIANCE SCHEDULE REPORT MODULE
· SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT VAEX.302

VAEX020

MODEL STATE INFORMATION SYSTEM
VARIANCES AND EXEMPTIONS SUBSYSTEM

DATE XX/XX/XX

COMPLIANCE SCHEDULE REPORT
FOR THE PERIOD XX/XX/XX TO XX/XX/XX

PAGE ZZZZ9

REGION: XX 1 DISTRICT: XX 2

VE-ID	PWS-ID	PUBLIC WATER SYSTEM NAME AND ADDRESS	VARIANCE/ EXEMPTION	V/E STATUS	DESCRIPTION
XXXXX	XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX	XXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3	4	5	6	7	8

TARGET DATE	REPEATING	MILESTONE CODE	MILESTONE DESCRIPTION
TARGET DATE: XX/XX/XX		XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
TARGET DATE: XX/XX/XX		XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
TARGET DATE: XX/XX/XX		XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
9	10	11	12

EXHIBIT NO: VAEX.302 PAGE 1 OF 2

PROGRAM NO: VAEX020

TITLE: Compliance Schedule Report

FIELD NO: 1 CATALOGUE NO: 274	DATA ELEMENT NAME: PWT-STATE-REGION DESCRIPTION:	A code identifying the administrative region of the State.
FIELD NO: 2 CATALOGUE NO: 275	DATA ELEMENT NAME: PWT-STATE-DISTRICT DESCRIPTION:	A code identifying the administrative district within a region.
FIELD NO: 3 CATALOGUE NO: 455	DATA ELEMENT NAME: VEF-ID DESCRIPTION:	The identification code of the variance or exemption granted to a PWS.
FIELD NO: 4 CATALOGUE NO: 457	DATA ELEMENT NAME: VEF-PWS-ID DESCRIPTION:	The number used to identify the Public Water System within the State.
FIELD NO: 5 CATALOGUE NO: 267	DATA ELEMENT NAME: PWT-MAILING-NAME DESCRIPTION:	The name of the Public Water System.
FIELD NO: 5 CATALOGUE NO: 268	DATA ELEMENT NAME: PWT-MAILING-STREET DESCRIPTION:	The first address line of the PWS.
FIELD NO: 5 CATALOGUE NO: 269	DATA ELEMENT NAME: PWT-MAILING-CITY DESCRIPTION:	The second address line of the PWS.
FIELD NO: 5 CATALOGUE NO: 270	DATA ELEMENT NAME: PWT-MAILING-STATE DESCRIPTION:	The U.S. Postal Service two character State abbreviation.
FIELD NO: 5 CATALOGUE NO: 271	DATA ELEMENT NAME: PWT-MAILING-ZIP-CODE DESCRIPTION:	The U.S. Postal Service Zip Code for the PWS.
FIELD NO: 6 CATALOGUE NO: 458	DATA ELEMENT NAME: VEF-VE-TYPE DESCRIPTION:	The code used to identify whether it is a variance or exemption (translated to the word on the report).

PROGRAM NO: VAEX020

TITLE: Compliance Schedule Report

FIELD NO: 7 CATALOGUE NO: 461	DATA ELEMENT NAME: VEF-STATUS-CODE DESCRIPTION:	A code describing the status of a variance or exemption.
FIELD NO: 8 CATALOGUE NO: 468	DATA ELEMENT NAME: VEF-CASE-ABSTRACT DESCRIPTION:	Case abstract of the variance or exemption.
FIELD NO: 9 CATALOGUE NO: 473	DATA ELEMENT NAME: VEF-TARGET-DATE DESCRIPTION:	Date on which the milestone should be reached.
FIELD NO: 10 CATALOGUE NO: 472	DATA ELEMENT NAME: VEF-MILESTONE-REPEAT DESCRIPTION:	Number of months between repetitions of the milestone (translated to word if greater than zero).
FIELD NO: 11 CATALOGUE NO: 475	DATA ELEMENT NAME: VEF-MILESTONE-CODE DESCRIPTION:	A code describing the type of milestone.
FIELD NO: 12 CATALOGUE NO: 477	DATA ELEMENT NAME: VEF-MILESTONE-ABSTRACT DESCRIPTION:	Abstract of the milestone.

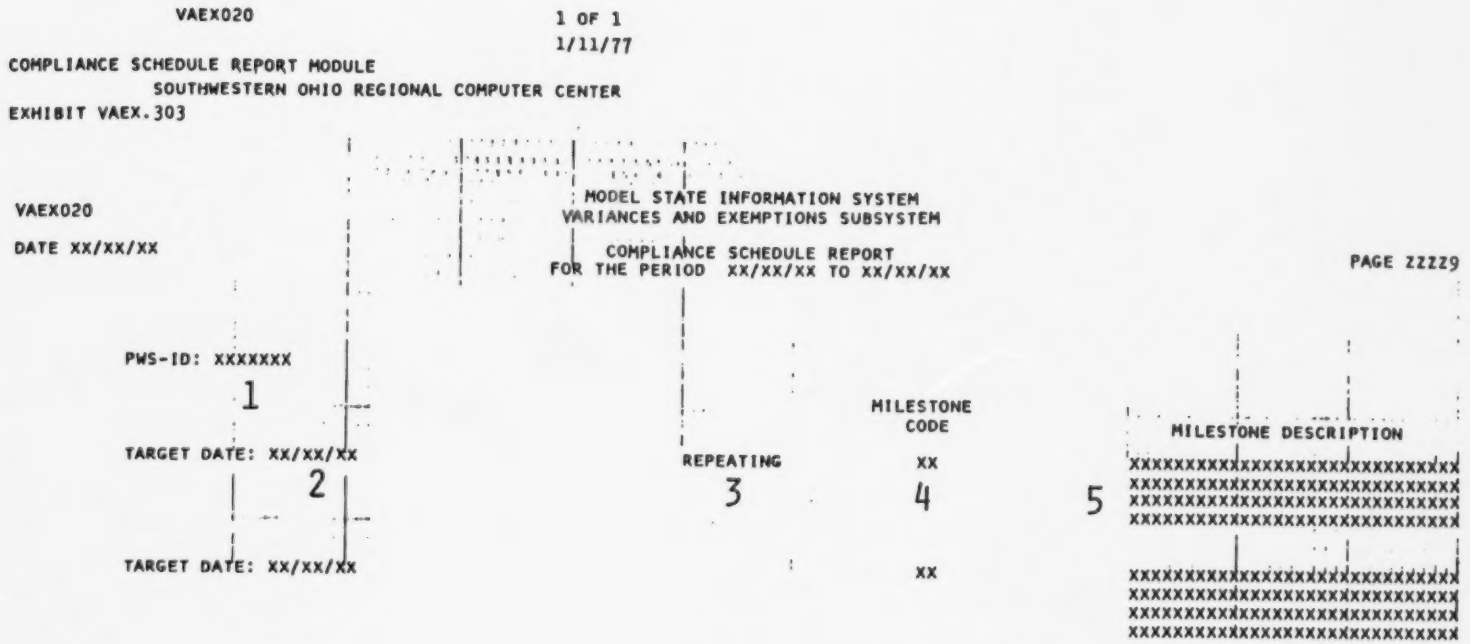

VAEX020
1 OF 1
1/11/77
COMPLIANCE SCHEDULE REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT VAEX.303
VAEX020
DATE XX/XX/XX
MODEL STATE INFORMATION SYSTEM
VARIANCES AND EXEMPTIONS SUBSYSTEM
COMPLIANCE SCHEDULE REPORT
FOR THE PERIOD XX/XX/XX TO XX/XX/XX
PAGE ZZZZ9
PWS-ID: XXXXXXX
1
TARGET DATE: XX/XX/XX
2
REPEATING
3
MILESTONE CODE
XX
4
MILESTONE DESCRIPTION
5
TARGET DATE: XX/XX/XX
XX

EXHIBIT NO: VAEX.303 PAGE 1 OF 1

PROGRAM NO: VAEX020

TITLE: Compliance Schedule Report (continuation)

FIELD NO: 1
CATALOGUE NO: 457
DATA ELEMENT NAME: VEF-PWS-ID
DESCRIPTION: The number used to identify the Public Water System within the State.

FIELD NO: 2
CATALOGUE NO: 473
DATA ELEMENT NAME: VEF-TARGET-DATE
DESCRIPTION: Date on which the milestone should be reached.

FIELD NO: 3
CATALOGUE NO: 472
DATA ELEMENT NAME: VEF-MILESTONE-REPEAT
DESCRIPTION: Number of months between repetitions of the milestone (translated to word if greater than zero).

FIELD NO: 4
CATALOGUE NO: 475
DATA ELEMENT NAME: VEF-MILESTONE-CODE
DESCRIPTION: A code describing the type of milestone.

FIELD NO: 5
CATALOGUE NO: 477
DATA ELEMENT NAME: VEF-MILESTONE-ABSTRACT
DESCRIPTION: Abstract of the milestone.

VAEX030 1 OF 1
1/11/77

COMPLIANCE SCHEDULE IN ARREARS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT VAEX.304

VAEX030 MODEL STATE INFORMATION SYSTEM
VARIANCES AND EXEMPTIONS SUBSYSTEM

DATE XX/XX/XX COMPLIANCE IN ARREARS REPORT PAGE ZZZZ9

REGION: XX 1 DISTRICT: XX 2

VE-ID	PWS-ID	PUBLIC WATER SYSTEM NAME AND ADDRESS	VARIANCE/ EXEMPTION	V/E STATUS	DESCRIPTION
XXXXX	XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX	XXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3	4	5	6	7	8

TARGET DATE	LAG (MONTHS)	DELAY CODE	REPEATING	MILESTONE CODE	MILESTONE DESCRIPTION
XX/XX/XX	XX	X		XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
9	10	11	12	13	14
XX/XX/XX	XX	X		XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XX/XX/XX	XX	X		XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

PROGRAM NO: VAEX030

TITLE: Compliance In Arrears Report

FIELD NO: 1
CATALOGUE NO: 274
DATA ELEMENT NAME: PWT-STATE-REGION
DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 2
CATALOGUE NO: 275
DATA ELEMENT NAME: PWT-STATE-DISTRICT
DESCRIPTION: A code identifying the administrative district within a region.

FIELD NO: 3
CATALOGUE NO: 455
DATA ELEMENT NAME: VEP-ID
DESCRIPTION: The identification code of the variance or exemption granted to a PWS.

FIELD NO: 4
CATALOGUE NO: 457
DATA ELEMENT NAME: VEP-PWS-ID
DESCRIPTION: The number used to identify the Public Water System within the State.

FIELD NO: 5
CATALOGUE NO: 267
DATA ELEMENT NAME: PWT-MAILING-NAME
DESCRIPTION: The name of the Public Water System.

FIELD NO: 5
CATALOGUE NO: 268
DATA ELEMENT NAME: PWT-MAILING-STREET
DESCRIPTION: The first address line of the PWS.

FIELD NO: 5
CATALOGUE NO: 269
DATA ELEMENT NAME: PWT-MAILING-CITY
DESCRIPTION: The second address line of the PWS.

FIELD NO: 5
CATALOGUE NO: 270
DATA ELEMENT NAME: PWT-MAILING-STATE
DESCRIPTION: The U.S. Postal Service two character state abbreviation.

FIELD NO: 5
CATALOGUE NO: 271
DATA ELEMENT NAME: PWT-MAILING-ZIP-CODE
DESCRIPTION: The U.S. Postal Service Zip Code for the PWS.

PROGRAM NO: VAEX030

TITLE: Compliance In Arrears Report

FIELD NO: 6 CATALOGUE NO: 458	DATA ELEMENT NAME: VEF-VE-TYPE DESCRIPTION:	The code used to identify whether it is a variance or exemption (translated to the word on the report).
FIELD NO: 7 CATALOGUE NO: 461	DATA ELEMENT NAME: VEF-STATUS-CODE DESCRIPTION:	A code describing the status of a variance or exemption.
FIELD NO: 8 CATALOGUE NO: 468	DATA ELEMENT NAME:VEF-CASE-ABSTRACT DESCRIPTION:	Case abstract of the variance or exemption.
FIELD NO: 9 CATALOGUE NO: 473	DATA ELEMENT NAME: VEF-TARGET-DATE DESCRIPTION:	Date on which the milestone should be reached.
FIELD NO: 10 CATALOGUE NO: 473	DATA ELEMENT NAME: VEF-TARGET-DATE DESCRIPTION:	Date on which the milestone should have been reached (subtracted from current date and reported in months).
FIELD NO: 11 CATALOGUE NO: 476	DATA ELEMENT NAME: VEF-DELAY-CODE DESCRIPTION:	A code describing the delay (may also mean the milestone was abolished).
FIELD NO: 12 CATALOGUE NO: 472	DATA ELEMENT NAME: VEF-MILESTONE-REPEAT DESCRIPTION:	Number of months between repetitions of the milestone (transalated to word if greater than zero).
FIELD NO: 13 CATALOGUE NO: 475	DATA ELEMENT NAME: VEF-MILESTONE-CODE DESCRIPTION:	A code describing the type of milestone.
FIELD NO: 14 CATALOGUE NO: 477	DATA ELEMENT NAME: VEF-MILESTONE-ABSTRACT DESCRIPTION:	Abstract of the milestone.

VAEX030 1 OF 1
1/11/77

COMPLIANCE SCHEDULE IN ARREARS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT VAEX.305

MODEL STATE INFORMATION SYSTEM
VARIANCES AND EXEMPTIONS SUBSYSTEM

VAEX030
COMPLIANCE IN ARREARS REPORT
PAGE ZZZZ9

DATE XX/XX/XX

PWS-ID: XXXXXXX

TARGET DATE	LAG(MONTHS)	DELAY CODE	REPEATING	MILESTONE CODE	MILESTONE DESCRIPTION
XX/XX/XX	XX	X		XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1	2	3	4	5	6
XX/XX/XX	XX	X		XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

* TOTAL PWS IN ARREARS FOR DISTRICT XX: ZZZZ9

** TOTAL PWS IN ARREARS FOR REGION XX: ZZZZ9

*** TOTAL PWS IN ARREARS FOR STATE XX: ZZZZ9

PROGRAM NO: VAEX030

TITLE: Compliance In Arrears Report (continuation)

FIELD NO: 1 CATALOGUE NO: 473	DATA ELEMENT NAME: VEF-TARGET-DATE DESCRIPTION: Date on which the milestcne should be reached.
FIELD NO: 2 CATALOGUE NO: 473	DATA ELEMENT NAME: VEF-TARGET-DATE DESCRIPTION: Date on which the milestone should have been reached (subtracted from current date and reported in months).
FIELD NO: 3 CATALOGUE NO: 476	DATA ELEMENT NAME: VEF-DELAY-CODE DESCRIPTION: A code describing the delay (may also mean the milestone was abolished).
FIELD NO: 4 CATALOGUE NO: 472	DATA ELEMENT NAME: VEF-MILESTONE-REPEAT DESCRIPTION: Number of months between repetitions of the milestone (transalated to word if greater than zero).
FIELD NO: 5 CATALOGUE NO: 475	DATA ELEMENT NAME: VEF-MILESTONE-CODE DESCRIPTION: A code describing the type of milestone.
FIELD NO: 6 CATALOGUE NO: 477	DATA ELEMENT NAME: VEF-MILESTONE-ABSTRACT DESCRIPTION: Abstract of the milestone.

VAEX041 1 of 1
1/11/77

CONDENSED REPORT MODULE
SouthWestern Ohio Regional Computer Center
EXHIBIT VAEX.306

VAEX041 MODEL STATE INFORMATION SYSTEM
VARIANCES AND EXEMPTIONS SUBSYSTEM

DATE XX/XX/XX CONDENSED REPORT PAGE ZZZZ9

VE ID	REF ID	V/E TYPE	EFFECTIVE DATE	EXPIR. DATE	V/E STATUS	CONT ID	MCL	TREATMENT CODE	REASON CODE	LAST UPDATE	NEXT TARGET	PWS-ID	PWS NAME
XXXXX	XXXXX	X	XX/XX/XX	XX/XX/XX	X	XXXX	XXXXXXXXXX	XXX	XX	XX/XX/XX	XX/XX/XX	XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXX	XXXXX	X	XX/XX/XX	XX/XX/XX	X	XXXX	XXXXXXXXXX	XXX	XX	XX/XX/XX	XX/XX/XX	XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1	2	3	4	5	6	7	8	9	10	11	12	13	14

EXHIBIT NO: VAEX.306

PROGRAM NO: VAEX041

TITLE: Condensed Report

FIELD NO: 1
CATALOGUE NO: 455
DATA ELEMENT NAME: VEF-ID
DESCRIPTION: The identification code of the variance or exemption granted to a PWS.

FIELD NO: 2
CATALOGUE NO: 456
DATA ELEMENT NAME: VEF-REVISED-ID-REFERENCE
DESCRIPTION: Reference to a previous variance or exemption if this is a revised one.

FIELD NO: 3
CATALOGUE NO: 458
DATA ELEMENT NAME: VEF-VE-TYPE
DESCRIPTION: The code used to identify whether it is a variance or exemption.

FIELD NO: 5
CATALOGUE NO: 459
DATA ELEMENT NAME: VEF-EFFECTIVE-DATE
DESCRIPTION: The date that the variance or exemption became effective, converted from Julian format.

FIELD NO: 5
CATALOGUE NO: 460
DATA ELEMENT NAME: VEF-EXPIRATION-DATE
DESCRIPTION: The date that the variance or exemption expires, converted from Julian format.

FIELD NO: 6
CATALOGUE NO: 461
DATA ELEMENT NAME: VEF-STATUS-CODE
DESCRIPTION: A code describing the status of a variance or exemption.

FIELD NO: 7
CATALOGUE NO: 462
DATA ELEMENT NAME: VEF-CONTAMINANT-ID
DESCRIPTION: Four digit Contaminant code of the variance or exemption.

FIELD NO: 8
CATALOGUE NO: 463
DATA ELEMENT NAME: VEF-MODIFIED-MCL
DESCRIPTION: The MCL assigned to the variance or exemption.

PROGRAM NO: VAEX041

TITLE: Ccndensed Report

FIELD NO: 9
CATALOGUE NO: 465
DATA ELEMENT NAME: VEF-TREATMENT-CODE
DESCRIPTION: A code describing the treatment applicable to the variance or exemption.

FIELD NO: 10
CATALOGUE NO: 469
DATA ELEMENT NAME: VEF-REASON-CODE
DESCRIPTION: Code describing the reason for the variance or exemption.

FIELD NO: 11
CATALOGUE NO: 470
DATA ELEMENT NAME: VEF-LAST-UPDATE-DATE
DESCRIPTION: Date of the last update to the variance or exemption.

FIELD NO: 12
CATALOGUE NO: 473
DATA ELEMENT NAME: VEF-TARGET-DATE
DESCRIPTION: Date on which the milestone should be reached.

FIELD NO: 13
CATALOGUE NO: 457
DATA ELEMENT NAME: VEF-PWS-ID
DESCRIPTION: The number used to identify the Public Water System within the State.

FIELD NO: 14
CATALOGUE NO: 267
DATA ELEMENT NAME: PWT-MAILING-NAME
DESCRIPTION: The name of the Public Water System.

VAEX050 1 OF 1
1/11/77

CASE HISTORY REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT VAEX.307

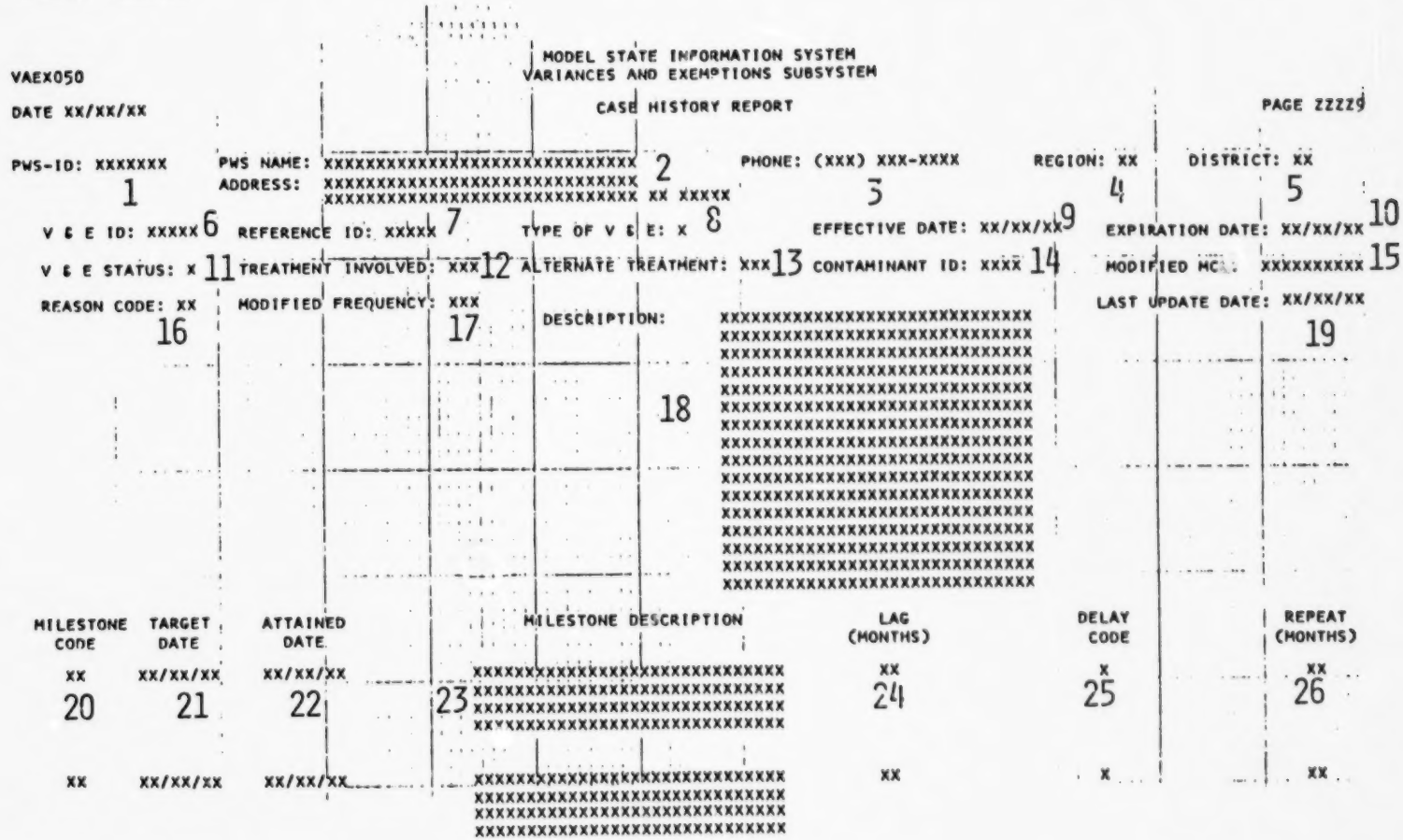


EXHIBIT NO: VAEX.307 PAGE 1 OF 4

PROGRAM NO: VAEX050

TITLE: Case History Report

FIELD NO: 1
CATALOGUE NO: 457
DATA ELEMENT NAME: VEF-PWS-ID
DESCRIPTION: The number used to identify the Public Water System within the State.

FIELD NO: 2
CATALOGUE NO: 267
DATA ELEMENT NAME: PWT-MAILING-NAME
DESCRIPTION: The name of the Public Water System.

FIELD NO: 2
CATALOGUE NO: 268
DATA ELEMENT NAME: PWT-MAILING-STREET
DESCRIPTION: The first address line of the PWS.

FIELD NO: 2
CATALOGUE NO: 269
DATA ELEMENT NAME: PWT-MAILING-CITY
DESCRIPTION: The second address line of the PWS.

FIELD NO: 2
CATALOGUE NO: 270
DATA ELEMENT NAME: PWT-MAILING-STATE
DESCRIPTION: The U.S. Postal Service two character state abbreviation.

FIELD NO: 2
CATALOGUE NO: 271
DATA ELEMENT NAME: PWT-MAILING-ZIP-CODE
DESCRIPTION: The U.S. Postal Service Zip Code for the PWS.

FIELD NO: 3
CATALOGUE NO: 272
DATA ELEMENT NAME: PWT-MAILING-AREA-CODE
DESCRIPTION: The Bell System telephone Area Code for the PWS.

FIELD NO: 3
CATALOGUE NO: 273
DATA ELEMENT NAME: PWT-MAILING-PHONE-NUMBER
DESCRIPTION: The telephone number of the PWS.

PROGRAM NO: VAEX050

TITLE: Case History Report

FIELD NO: 4
CATALOGUE NO: 274
DATA ELEMENT NAME: PWT-STATE-REGION
DESCRIPTION: A code identifying the administrative region of the State.

FIELD NO: 5
CATALOGUE NO: 275
DATA ELEMENT NAME: PWT-STATE-DISTRICT
DESCRIPTION: A code identifying an administrative district within a region.

FIELD NO: 6
CATALOGUE NO: 455
DATA ELEMENT NAME: VEF-ID
DESCRIPTION: The identification code of the variance or exemption granted to a PWS.

FIELD NO: 7
CATALOGUE NO: 456
DATA ELEMENT NAME: VEF-REVISED-ID-REFERENCE
DESCRIPTION: Reference to a previous variance or exemption if this is a revised one.

FIELD NO: 8
CATALOGUE NO: 458
DATA ELEMENT NAME: VEF-VE-TYPE
DESCRIPTION: The code used to identify whether it is a variance or exemption.

FIELD NO: 9
CATALOGUE NO: 459
DATA ELEMENT NAME: VEF-EFFECTIVE-DATE
DESCRIPTION: The date that the variance or exemption became effective, converted from Julian format.

FIELD NO: 10
CATALOGUE NO: 460
DATA ELEMENT NAME: VEF-EXPIRATION-DATE
DESCRIPTION: The date that the variance or exemption expires. converted from Julian format.

FIELD NO: 11
CATALOGUE NO: 461
DATA ELEMENT NAME: VEF-STATUS-CODE
DESCRIPTION: A code describing the status of a variance or exemption.

PROGRAM NO: VAEX050

TITLE: Case History Report

FIELD NO: 12
CATALOGUE NO: 465
DATA ELEMENT NAME: VEF-TREATMENT-CODE
DESCRIPTION: A code describing the treatment applicable to the variance or exemption.

FIELD NO: 13
CATALOGUE NO: 466
DATA ELEMENT NAME: VEF-ALTERNATE-TREATMENT
DESCRIPTION: Alternate treatment used if applicable.

FIELD NO: 14
CATALOGUE NO: 462
DATA ELEMENT NAME: VEF-CONTAMINANT-ID
DESCRIPTION: Four digit contaminant code of the variance or exemption.

FIELD NO: 15
CATALOGUE NO: 463
DATA ELEMENT NAME: VEF-MODIFIED-MCL
DESCRIPTION: The MCL assigned to the variance or exemption.

FIELD NO: 16
CATALOGUE NO: 469
DATA ELEMENT NAME: VEF-REASON-CODE
DESCRIPTION: Code describing the reason for the variance or exemption.

FIELD NO: 17
CATALOGUE NO: 467
DATA ELEMENT NAME: VEF-MODIFIED-FREQUENCY
DESCRIPTION: The modified sampling frequency of the variance or exemption.

FIELD NO: 18
CATALOGUE NO: 468
DATA ELEMENT NAME: VEF-CASE-ABSTRACT
DESCRIPTION: Case abstract of the variance or exemption.

FIELD NO: 19
CATALOGUE NO: 470
DATA ELEMENT NAME: VEF-LAST-UPDATE-DATE
DESCRIPTION: Date of the last update to the variance or exemption.

PROGRAM NO: VAEX050

TITLE: Case History Report

FIELD NO: 20
CATALOGUE NO: 475
DATA ELEMENT NAME: VEF-MILESTONE-CODE
DESCRIPTION: A code describing the type of milestone.

FIELD NO: 21
CATALOGUE NO: 473
DATA ELEMENT NAME: VEF-TARGET-DATE
DESCRIPTION: Date on which the milestone should have been reached, converted from Julian format.

FIELD NO: 22
CATALOGUE NO: 474
DATA ELEMENT NAME: VEF-MILESTONE-ATTAINED-DATE
DESCRIPTION: The date on which the milestone was actually attained, converted from Julian format.

FIELD NO: 23
CATALOGUE NO: 477
DATA ELEMENT NAME: VEF-MILESTONE-ABSTRACT
DESCRIPTION: Abstract of the milestone.

FIELD NO: 24
CATALOGUE NO: 473
DATA ELEMENT NAME: VEF-TARGET-DATE
DESCRIPTION: Date on which the milestone should have been reached subtracted from current date and reported in months.

FIELD NO: 25
CATALOGUE NO: 476
DATA ELEMENT NAME: VEF-DELAY-CODE
DESCRIPTION: A code describing the delay (may also mean the milestone was abolished).

FIELD NO: 26
CATALOGUE NO: 472
DATA ELEMENT NAME: VEF-MILESTONE-REPEAT
DESCRIPTION: Number of months between repetitions of the milestone.

VAEX050 1 OF 1
10/27/76

CASE HISTORY REPORT MODULE
. SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT VAEX.308

VAEX050 MODEL STATE INFORMATION SYSTEM
VARIANCES AND EXEMPTIONS SUBSYSTEM

DATE XX/XX/XX CASE HISTORY REPORT PAGE ZZZZ9

PWS-ID: XXXXXXX

1

MILESTONE CODE	TARGET DATE	ACTUAL DATE	MILESTONE DESCRIPTION	LAG (MONTHS)	DELAY CODE	REPEAT (MONTHS)
XX	XX/XX/XX	XX/XX/XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX	X	XX
2	3	4		6	7	8

5

EXHIBIT NO: VAEX.308 PAGE 1 OF 1

PROGRAM NO: VAEX050

TITLE: Case History Report (continuation)

FIELD NO: 1 CATALOGUE NO: 457	DATA ELEMENT NAME: VEF-PWS-ID DESCRIPTION:	The number used to identify the Public Water System within the State.
FIELD NO: 2 CATALOGUE NO: 475	DATA ELEMENT NAME: VEF-MILESTONE-CODE DESCRIPTION:	A code describing the type of milestone.
FIELD NO: 3 CATALOGUE NO: 473	DATA ELEMENT NAME: VEF-TARGET-DATE DESCRIPTION:	Date on which the milestone should have been reached, converted from Julian format.
FIELD NO: 4 CATALOGUE NO: 474	DATA ELEMENT NAME: VEF-MILESTONE-ATTAINED-DATE DESCRIPTION:	The date on which the milestone was actually attained, converted from Julian format.
FIELD NO: 5 CATALOGUE NO: 477	DATA ELEMENT NAME: VEF-MILESTONE-ABSTRACT DESCRIPTION:	Abstract of the milestone.
FIELD NO: 6 CATALOGUE NO: 473	DATA ELEMENT NAME: VEF-TARGET-DATE DESCRIPTION:	Date on which the milestone should have been reached subtracted from current date and reported in months.
FIELD NO: 7 CATALOGUE NO: 476	DATA ELEMENT NAME: VEF-DELAY-CODE DESCRIPTION:	A code describing the delay (may also mean the milestone was abolished).
FIELD NO: 8 CATALOGUE NO: 472	DATA ELEMENT NAME: VEF-MILESTONE-REPEAT DESCRIPTION:	Number of months between repetitions of the milestone.

4. Error Messages and Remedial Actions

Error messages other than those from the Error Message Table (EMT) and the Standard Error Messages for Processing Options are listed in program number sequence, along with their remedial actions, if any.

a. VAEX010 - V & E File Data Entry & Update

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for PROC Records.

MESSAGE: PWS-ID CAUSED UNRECOVERABLE ERROR
REMEDIAL ACTION: The PWS-ID was invalid and cannot be processed. Remove the transaction and rerun the job.

b. VAEX020 - Compliance Schedule Report

None.

e. VAEX030 - Compliance Schedule In Arrears Report

None.

d. VAEX040 - V & E File Selection

Any error messages that dc not appear below can be found in Standard Error Messages and Remedial Actions for PROC Records and for SEL1 and SEL2 Records.

MESSAGE: ERROR - NO VE DATA ELEMENT TABLE WAS PROVIDED
REMEDIAL ACTION: Mount VE DET and rerun job

MESSAGE: ERROR - DATA ELEMENT TABLE EXCEEDS MAXIMUM
REMEDIAL ACTION: Notify programming that the DET exceeds program capacity and that the program will have to be changed to accommodate a larger DET.

MESSAGE: ERROR - INVALID REPORT REQUEST - NOT Y OR N
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for correction. Obtain new option and rerun job.

MESSAGE: ERROR - NO PWT RECORD FOR THIS ITEM
REMEDIAL ACTION: None. This is used to notify the user the PWS-ID was either entered incorrectly or that it actually is not on file and must be entered before this transaction can be processed.

e. VAEX041 - Condensed Report

None

f. VAEX050 - Case History Report

None

G. Enforcement Actions Subsystem (ENAC)

1. General Description

The purpose of this optional subsystem is to provide the state with a method for collection, maintenance, and processing of data related to actions performed in connection with enforcing the state's own regulations (or the Federal Regulations) under the Safe Drinking Water Act. The data can then be used for evaluating the effectiveness of different types of enforcement actions. Reporting to EPA of enforcement actions, as required by section 142.15 of the regulations, can also be done automatically using the subsystem by submitting to EPA the reports of the entire Enforcement Actions File (EAF).

2. How to Enter Data

The following instructions are in narrative form to be used as an educational tool for a user who is new to MSIS. A quick reference guide can be found in the Data Entry Instruction Manual for each of the input documents relative to this subsystem. They are arranged numerically by exhibit number.

EXHIBIT NO: ENAC.100
DESCRIPTION: This form is used with program module ENAC010. It contains all the Standard Error and Standard History options necessary for the entire job stream.

-All dates are entered in the same format: The two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The PROC Date will be used in the report heading.

-There are two Standard Error Processing Options. The first is used to indicate whether or not a special output file of error records will be produced. To create it would be beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices. The second option is used to determine whether the entire transaction should be printed on the error report or only those fields which are in error. The instructions are self-explanatory.

-The Standard History Processing Option is self-explanatory.

EXHIBIT NO: ENAC.101
DESCRIPTION: This form is used with program module ENAC010, Data Entry and Update. It contains information for the creation or updating of legal or plaintiff records.

-In all instances, the Case Identification should be entered.

-Card Code "00" is only used when the user is creating a new record. If the transaction is to be changed to an existing record, then coding should begin with card "01" and beyond.

-The Case States Option is self-explanatory.

-Enter the Case's first reference.

-Enter the Case's name.

-The Action Date should be entered in the following manner: code the two-digit month under "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

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-A list of Status Codes can be found in Appendix B of the Data Element Dictionary.

-Enter the seven digit PWS ID of the PWS to which this action pertains.

-A list of State Codes can be found in Appendix B of the Data Element Dictionary.

-Card Code "02" can be used to describe the plaintiff information.

-A list of Plaintiff Codes can be found in Appendix B of the Data Element Dictionary.

-Enter the name of the Plaintiff.

-A list of Defendant Codes can be found in Appendix B of the Data Element Dictionary.

-Enter the name of the Defendant.

EXHIBIT NO: ENAC.102
DESCRIPTION: This form is used with program module ENAC010. It contains violation and consent order and permit information.

-In all instances the Case Identification should be entered.

-Card code "03" is only used when the user is adding or deleting a violation group, in which case violation group, in which case violation type and date must be present.

-A list of Violation Types can be found in Appendix B of the Data Element Dictionary.

-Enter the date the violation occurred in the following manner: code the two-digit month under "M", the two-digit day under the "D", and the last two digits of the year under "Y".

-A list of the Contaminant Codes can be found in Appendix B of the Data Element Dictionary.

-Enter a "Y" to delete a violation, otherwise leave blank.

-Card code "04" is used to describe the consent order and permit information associated with this Enforcement Action.

-Enter the Consent Order Date in the following manner: code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-Enter the Permit Number of the PWS associated with this case.

-Enter the Permit Date in the following manner: code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

EXHIBIT NO: ENAC.103
DESCRIPTION: This form is used with program module ENAC010. It contains the description of the Enforcement Action.

-In all instances the Case Identification should be entered.

-Card codes "05" thru "14" can be used at the discretion of the user to describe the case. All of them need not be used, but no more than those may be used.

-Enter the description of the Enforcement Action.

EXHIBIT NO: ENAC.104
DESCRIPTION: This form is used with program module ENAC010. It contains information to update milestones on an Enforcement Actions Record.

-In all instances the Case Identification should be entered.

-Card code "15" is used to describe milestone information associated with this Enforcement Action.

-A list of the Milestone Codes can be found in Appendix B of the Data Element Dictionary.

Enter the Target Date in the following manner: code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-Enter the Attained Date in the same manner as described above for the Target Date.

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-Enter a "Y" if the milestone is to be deleted, otherwise, leave this field blank.

-For card code "98" a "Y" must be entered if this record is to be selected for the Case History Report. Otherwise, leave blank.

-For card code "99" a "Y" must be entered if this record is to be deleted from the file. Otherwise, leave blank.

EXHIBIT NO: ENAC.105
DESCRIPTION: This form is used with program module ENAC020. It contains options that will be passed to other modules to create reports. - -

-The date is coded as the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The report options simply state whether or not to produce the reports from the selected records.

EXHIBIT NO: ENAC.106
DESCRIPTION: Refer to Section IV, User Defined Report Sequencing in this manual for complete instructions. This form will be used with program module ENAC020.

EXHIBIT NO: ENAC.107
DESCRIPTION: Refer to section III, User Defined Selection of Information, in this manual for complete instructions. This form will be used with program module ENAC020.

EXHIBIT NO: ENAC.108
DESCRIPTION: Refer to Section III, User Defined Selection of Information, in this manual for complete instructions. This form will be used with program module ENAC020.

3. Output Reports

Each report created by this subsystem is explained in detail, field by field, telling from where the data was obtained and how it was manipulated, if at all. They are arranged numerically by exhibit number.

ENAC030 PAGE 1 OF 1
DATE 2/15/77

CASE HISTORY REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT ENAC.300

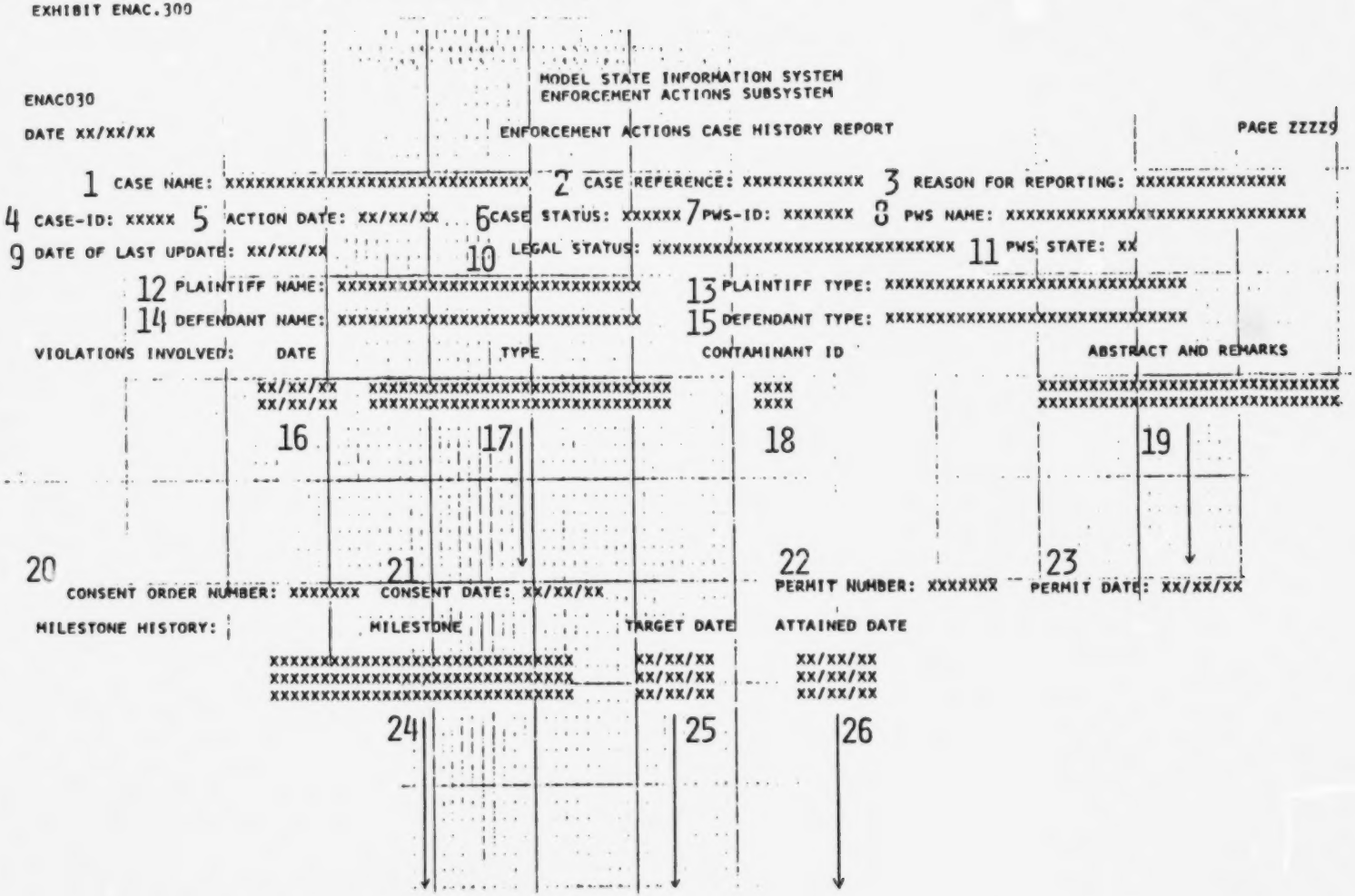


EXHIBIT NO: ENAC.300 PAGE 1 OF 3

PROGRAM NO: ENAC030

TITLE: Enforcement Actions Case History Report

FIELD NO: 1 DATA ELEMENT NAME: EAF-CASE-NAME
CATALOGUE NO: 432 DESCRIPTION: Name of case.

FIELD NO: 2 DATA ELEMENT NAME: EAF-CASE-REF
CATALOGUE NO: 431 DESCRIPTION: Legal identification of an enforcement action.

FIELD NO: 3
DESCRIPTION: Reason for reporting

FIELD NO: 4 DATA ELEMENT NAME: EAF-CASE-ID
CATALOGUE NO: 430 DESCRIPTION: Case number of enforcement action.

FIELD NO: 5 DATA ELEMENT NAME: EAF-ACTION-DATE
CATALOGUE NO: 433 DESCRIPTION: Date on which the enforcement action was initiated, converted from Julian format.

FIELD NO: 6 DATA ELEMENT NAME: EAF-CLOSE-OPEN-INDIC
CATALOGUE NO: 434 DESCRIPTION: A flag indicating whether the case is open or closed, here translated to the actual word.

FIELD NO: 7 DATA ELEMENT NAME: EAF-PWS-ID
CATALOGUE NO: 443 DESCRIPTION: The number used to identify the PWS within the State.

FIELD NO: 8 DATA ELEMENT NAME: PWT-MAILING-NAME
CATALOGUE NO: 267 DESCRIPTION: The mailing name of the PWS.

FIELD NO: 9 DATA ELEMENT NAME: EAF-LAST-UPDATE-DATE
CATALOGUE NO: 450 DESCRIPTION: The date on which the record was last updated, converted from Julian format.

FIELD NO: 10 DATA ELEMENT NAME: EAF-LEGAL-STATUS
CATALOGUE NO: 449 DESCRIPTION: The legal status of the enforcement action case.

PROGRAM NO: ENAC030

TITLE: Enforcement Actions Case History Report

FIELD NO: 11 DATA ELEMENT NAME: EAF-PWS-STATE
CATALOGUE NO: 444 DESCRIPTION: The two character U.S. Postal Service abbreviation for the state name of the PWS.

FIELD NO: 12 DATA ELEMENT NAME: EAF-PLAINTIFF-NAME
CATALOGUE NO: 436 DESCRIPTION: Name of the plaintiff in this action.

FIELD NO: 13 DATA ELEMENT NAME: EAF-PLAINTIFF-TYPE
CATALOGUE NO: 435 DESCRIPTION: The type of plaintiff in the enforcement action case.

FIELD NO: 14 DATA ELEMENT NAME: EAF-DEFENDANT-NAME
CATALOGUE NO: 438 DESCRIPTION: Name of the defendant in the enforcement action.

FIELD NO: 15 DATA ELEMENT NAME: EAF-DEFENDANT-TYPE
CATALOGUE NO: 437 DESCRIPTION: Type of defendant in the enforcement action.

FIELD NO: 16 DATA ELEMENT NAME: EAF-VIOLATION-DATE
CATALOGUE NO: 445 DESCRIPTION: the date on which the violation occurred which is associated with the enforcement action.

FIELD NO: 17 DATA ELEMENT NAME: EAF-VIOLATION-TYPE
CATALOGUE NO: 447 DESCRIPTION: A code identifying the type of violation associated with the enforcement action.

FIELD NO: 17 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: The description of the violation code (this is what is printed).

FIELD NO: 18 DATA ELEMENT NAME: EAF-CONTAMINANT-ID
CATALOGUE NO: 446 DESCRIPTION: The Contaminant code which caused the violation for which the enforcement action was made.

PROGRAM NO: ENAC030

TITLE: Enforcement Actions Case History Report

FIELD NO: 19 DATA ELEMENT NAME: EAF-CASE-ABSTRACT
CATALOGUE NO: 448 DESCRIPTION: Abstract of the enforcement action.

FIELD NO: 20 DATA ELEMENT NAME: EAF-CONSENT-ORDER-NO
CATALOGUE NO: 439 DESCRIPTION: The consent order number applied to the enforcement action.

FIELD NO: 21 DATA ELEMENT NAME: EAF-CONS-ORD-DATE
CATALOGUE NO: 440 DESCRIPTION: Date of the consent order, converted from Julian format.

FIELD NO: 22 DATA ELEMENT NAME: EAF-PERMIT-NO
CATALOGUE NO: 441 DESCRIPTION: Number of the permit used to operate the PWS.

FIELD NO: 23 DATA ELEMENT NAME: EAF-PERMIT-DATE
CATALOGUE NO: 442 DESCRIPTION: The date of issue of a permit to operate a PWS.

FIELD NO: 24 DATA ELEMENT NAME: EAF-MILESTONE-CODE
CATALOGUE NO: 454 DESCRIPTION: A code identifying a milestone associated with the enforcement action.

FIELD NO: 24 DATA ELEMENT NAME: CVT-DATA-EL-DESC
CATALOGUE NO: 284 DESCRIPTION: The description of the milestone code (this is what is printed).

FIELD NO: 25 DATA ELEMENT NAME: EAF-TARGET-DATE
CATALOGUE NO: 452 DESCRIPTION: The date on which a specific milestone is to be completed, converted from Julian format.

FIELD NO: 26 DATA ELEMENT NAME: EAF-MILESTONE-ATTAINED-DATE
CATALOGUE NO: 453 DESCRIPTION: The date on which a milestone was actually completed, converted from Julian format.

ENAC040 1 OF 1
2/8/77

CONDENSED REPORT MODULE
. SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT ENAC.301

ENAC040 MODEL STATE INFORMATION SYSTEM
ENFORCEMENT ACTIONS SUBSYSTEM

DATE XX/XX/XX ENFORCEMENT ACTIONS CONDENSED REPORT PAGE ZZZZ9

CASE ID	CASE REFERENCE	CASE TITLE	PLAINTIFF TYPE	DEFENDANT TYPE	ACTION DATE	CASE STATUS ③	PWS-ID	******* DATE	VIOLATIONS TYPE	******** CONTAMINANT
XXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	X	X	XX/XX/XX	XXXXXX	XXXXXXX	XX/XX/XX	XX	XXXX ①
								XX/XX/XX	XX	XXXX
1	2	3	4	5	6	7	8	XX/XX/XX	XX	XXXX
XXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	X	X	XX/XX/XX	XXXXXX	XXXXXXX	XX/XX/XX	XX	XXXX
						③		9	10	11

*** NUMBER OF ACTIONS FOR PWS: 99999 *** ②
12

407

① THERE MAY BE UP TO TEN VIOLATIONS PER ENFORCEMENT ACTION.

② THIS TOTAL IS ONLY CALCULATED AND PRINTED IF THE MAJOR SORT KEY WAS PWS-ID

③ X'S TO BE REPLACED BY OPEN OR CLOSED

EXHIBIT NO: ENAC.301 PAGE 1 OF 1

PROGRAM NC: ENAC040

TITLE: Ccndensed Report

FIELD NO: 1 DATA ELEMENT NAME: EAF-CASE-ID
CATALOGUE NO: 430 DESCRIPTION: Case number of enforcement action.

FIELD NO: 2 DATA ELEMENT NAME: EAF-CASE-REF
CATALOGUE NO: 431 DESCRIPTION: Legal identification of an enforcement action.

FIELD NO: 3 DATA ELEMENT NAME: EAF-CASE-NAME
CATALOGUE NO: 432 DESCRIPTION: Name of case.

FIELD NO: 4 DATA ELEMENT NAME: EAF-PLAINTIF-TYPE
CATALOGUE NO: 435 DESCRIPTION: Code identifying the type of plaintiff in the case.

FIELD NO: 5 DATA ELEMENT NAME: EAF-DEFENDANT-TYPE
CATALOGUE NO: 437 DESCRIPTION: Code identifying the type of defendant in the case.

FIELD NO: 6 DATA ELEMENT NAME: EAF-ACTION-DATE
CATALOGUE NO: 433 DESCRIPTION: Date on which the enforcement action was initiated, converted from Julian format.

FIELD NO: 7 DATA ELEMENT NAME: EAF-CASE-OPEN-INDIC
CATALOGUE NO: 434 DESCRIPTION: A flag indicating whether the case is open, value = Y, or closed, value = N.

FIELD NO: 8 DATA ELEMENT NAME: EAF-PWS-ID
CATALOGUE NO: 443 DESCRIPTION: The number used to identify a PWS.

FIELD NO: 9 DATA ELEMENT NAME: EAF-VIOLATION-DATE
CATALOGUE NO: 445 DESCRIPTION: Date on which the violation occurred, converted from Julian format.

FIELD NO: 10 DATA ELEMENT NAME: EAF-VIOLATION-TYPE
CATALOGUE NO: 447 DESCRIPTION: Code used to identify the type of violation.

FIELD NO: 11 DATA ELEMENT NAME: EAF-CONTAMINANT-ID
CATALOGUE NO: 446 DESCRIPTION: Code used to identify the Contaminant in violation.

4. Error Messages and Remedial Actions

Error messages other than those from the Error Message Table (EMT) and the Standard Error Messages for Processing Options are listed in program number sequence, along with their remedial actions, if any.

a. ENAC010 - EAF Data Entry & Update

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for PROC Records.

MESSAGE: PWS-ID CAUSED UNRECOVERABLE ERROR * ABEND *
REMEDIAL ACTION: The PWS-ID was invalid and cannot be processed. Remove the transaction and rerun the job.

MESSAGE: NO RECORDS AVAILABLE FOR CODE VALUE TABLE * ABEND *
REMEDIAL ACTION: Mount CVT and rerun job. If CVT was mounted and there are no records on it, program MSIS030 must be run to create a CVT so that this program can be run again.

MESSAGE: CVT ENTRIES EXCEED DEFINED LIMITS - ATTEMPT ABORTED
REMEDIAL ACTION: Notify programming that the CVT exceeds program capacity and that the program will have to be changed to accommodate a larger CVT.

MESSAGE: MISSING ON RECORD - REQUIRED FOR EPA REPORTING
REMEDIAL ACTION: None. This is used to notify the user that a data element is missing and needs to be entered for EPA reporting.

b. ENAC020 - EAF Selection

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for PROC Records and for SEL1 and SEL2 Records.

MESSAGE: ERROR - NO EA DATA ELEMENT TABLE WAS PROVIDED
REMEDIAL ACTION: Mount DET and rerun job.

MESSAGE: CONDENSED REPORT OPTION INVALID, DEFAULTING TO N
REMEDIAL ACTION: None. The Condensed Report will not be produced.

MESSAGE: CASE HISTORY REPT OPTION INVALID, DEFAULTING TO N
REMEDIAL ACTION: None. The Case History Report will not be produced.

c. ENAC030 - Case History Report

None

d. ENAC040 - Condensed Report

None

H. Sanitary Survey Subsystem (SRVY)

1. General Description

The Sanitary Survey Subsystem (SRVY) is an optional subsystem designed to satisfy Section 142.10 (B)(2) of the Drinking Water Standards Implementation Regulations which requires states that assume enforcement responsibility to have "A systematic program for conducting sanitary survey compliance...."

A survey of 24 states shows that many states do not have enough manpower to survey as they would like. The addition of non-community Public Water Systems to those already under regulation will increase a systematic method of scheduling sanitary surveys. The Sanitary Survey Subsystem is designed to provide this systematic method.

The method is based on assigning different weights to four parameters: PWS type, size of population served, compliance history, and period elapsed since last survey. State officials can change the relative weights until a satisfactory formula is reached.

2. How to Enter Data

The following instructions are in narrative form to be used as an educational tool for a user who is new to MSIS. A quick reference guide can be found in the Data Entry Instruction Manual for each of the input documents relative to this subsystem. They are arranged numerically by exhibit number.

EXHIBIT NO: SRVY.100
DESCRIPTION: This form is used with program module SRVY010. It contains the information to determine the Processing Options.

-The date should be coded as the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-Enter the Priority Selection Weight for the type of water supply. Legal values are 0.0 thru 1.0.

-Enter the Priority Selection Weight for the population served. Legal values are 0.0 thru 1.0.

-Enter the Priority Selection Weight for history of past violations. Legal values are 0.0 thru 1.0.

-Enter the Priority Selection Weight for the date of the last sanitary survey. Legal values are 0.0 thru 1.0.

-Enter the Priority Selection Weight for the type of water source. Legal values are 0.0 thru 1.0.

-Enter a "Y" to produce the Pricrity Report. Enter "N" to suppress the report.

-Enter a "Y" to produce the Schedule Report. Enter "N" to suppress the report.

-Enter the code for the type of Priority Option desired. If "1" is entered the reports will cover the entire state. If "2" is entered the reports will cover only specific regions and/or districts as specified in columns 28 thru 47. If "3" is entered the reports will distribute the number of Sanitary Surveys equally among all districts or regions in the State.

-Enter the Surveying Capacity which the specified surveying authority has the capability of performing within the specified period. Enter blanks to specify an unlimited capacity.

-Enter the specific Regions and Districts to be surveyed. If the Priority Option column 23 is not equal to "2", these fields must be blank. If the Priority Option, column 23, is equal to "2", one of these fields must be non-blank.

-Enter the period during which the Sanitary Surveys are to be scheduled. The "FROM" date and the "TO" must be entered in the following manner: code the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-Enter the valid PWF report options. If column 28 is equal to "N" this field must be left blank since this option pertains to those Public Water System records that will be shown on the Schedule Report.

EXHIBIT NO: SRVY.101
DESCRIPTION: Refer to Section IV, User Defined Report Sequencing, in this manual for complete instructions. This form will be used with program SRVY010.

3. Output Reports

Each report created by this subsystem is explained in detail, field by field, telling from where the data was obtained and how it was manipulated, if at all. They are arranged numerically by exhibit number.

SRVY020

1 OF 1
4/1/77

SCHEDULE REPORT MODULE

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT SRVY.300

SRVY020

MODEL STATE INFORMATION SYSTEM
SANITARY SURVEY SUBSYSTEM
PRIORITY REPORT

PAGE ZZZZ9

SELECTION WEIGHTS: PWS TYPE - X.X (1) POPULATION SERVED - X.X (2) COMPLIANCE - X.X (3) LAST SURVEY DATE - X.X (4) TYPE SOURCE - X.X (5)

REGION/ DISTRICT	PWS NAME	ADDRESS	PWS TYPE	POPULATION SERVED	VIOLATIONS IN LAST TWO YEARS	LAST SURVEY DATE	TYPE SOURCE	SELECTION KEY
XX / XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX						
6 7	PWS-ID: XXXXXXX 8	9 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX 10	XX 11	XXXXX 12	X 13	XXXXXXXXX 14	XX 15	XX/XX/XX 16 XXXXXXX 17 X.XXXX 18
XX / XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX			X	XXXXXXXXX	XX	XX/XX/XX XXXXXXX X.XXXX
	PWS-ID: XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX	XXXXX				

EXHIBIT NO: SRVY.300 PAGE 1 OF 3

PROGRAM NO: SRVY020

TITLE: Priority Report

*NOTE: Fields 1-5 are taken from the PROC option.

FIELD NO: 1
DATA ELEMENT NAME: SRVI-PROC-TYPE-WT
DESCRIPTION: The priority selection weight for the type of water supply.

FIELD NO: 2
DATA ELEMENT NAME: SRVI-PROC-POP-WT
DESCRIPTION: The priority selection weight for the population served.

FIELD NO: 3
DATA ELEMENT NAME: SRVI-PROC-COMP-WT
DESCRIPTION: The priority selection weight for Violation History.

FIELD NO: 4
DATA ELEMENT NAME: SRVI-PROC-LAST-DATE-WT
DESCRIPTION: The priority selection weight for the date of the last Sanitary Survey.

FIELD NO: 5
DATA ELEMENT NAME: SRVI-PROC-SOURCE-WT
DESCRIPTION: The priority selection weight for the type of source water.

FIELD NO: 6
CATALOGUE NO: 200
DATA ELEMENT NAME: PWF-STATE-REGION
DESCRIPTION: A code identifying an administrative region of the State.

FIELD NO: 7
CATALOGUE NO: 201
DATA ELEMENT NAME: PWF-STATE-DISTRICT
DESCRIPTION: A code identifying an administrative district within a region.

FIELD NO: 8
CATALOGUE NO: 145
DATA ELEMENT NAME: PWF-ID
DESCRIPTION: The number used to identify the Public Water System within the State.

FIELD NO: 9
CATALOGUE NO: 151
DATA ELEMENT NAME: PWF-MAILING-NAME
DESCRIPTION: The mailing name of the PWS.

PROGRAM NO: SRVY020

TITLE: Priority Report

FIELD NO: 10 DATA ELEMENT NAME: PWF-MAILING-STREET
CATALOGUE NO: 147 DESCRIPTION: The first line of the mailing address of the PWS.

FIELD NO: 10 DATA ELEMENT NAME: PWF-MAILING-CITY
CATALOGUE NO: 153 DESCRIPTION: The second line of the mailing address of the PWS.

FIELD NO: 11 DATA ELEMENT NAME: PWF-MAILING-STATE
CATALOGUE NO: 154 DESCRIPTION: The two character U.S. Postal Service abbreviation of the mailing address of the PWS.

FIELD NO: 12 DATA ELEMENT NAME: PWF-MAILING-ZIP-CODE
CATALOGUE NO: 155 DESCRIPTION: The U.S. Postal Service Zip Code of the mailing address of the PWS.

FIELD NO: 13 DATA ELEMENT NAME: PWF-PLANT-TYPE
CATALOGUE NO: 182 DESCRIPTION: A flag indicating whether this is a community or non-community PWS.

PROGRAM NC: SRVY020

TITLE: Priority Repcrt

FIELD NO: 14
CATALOGUE NO: 183
DATA ELEMENT NAME: PWF-PLANT-POPULATION-SERVED
DESCRIPTION: Total population obtaining water from the PWS.

FIELD NO: 15
DATA ELEMENT NAME: SRVI-P-VIOLATIONS
DESCRIPTION: The number of violations by this PWS within the last two years.

FIELD NO: 16
CATALOGUE NO: 192
DATA ELEMENT NAME: PWF-PLANT-LAST-SURVEY-DATE
DESCRIPTION: The date of the last Sanitary Survey of this PWS.

FIELD NO: 17
CATALOGUE NO: 244
DATA ELEMENT NAME: PWF-PLANT-SOURCE-CODE
DESCRIPTION: A code indicating the origin of water supplied by this PWF.

FIELD NO: 18
DATA ELEMENT NAME: SRVI-P-SELECTION-KEY
DESCRIPTION: A fractional number indicating the surveying priority of this PWS.

SRVY020 1 OF 1
4/1/77

SCHEDULE REPORT MODULE

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT SRVY.301

SRVY020

MODEL STATE INFORMATION SYSTEM
SANITARY SURVEY SUBSYSTEM
SCHEDULE REPORT

PAGE ZZZZ9

1 FROM XX/XX/XX 2 TO XX/XX/XX 3 SURVEYING CAPACITY: XXXX

SELECTION WEIGHTS: PWS TYPE - X.X POPULATION SERVED - X.X COMPLIANCE - X.X 7 LAST SURVEY DATE - X.X 8 TYPE SOURCE - X.X

REGION/ DISTRICT	PWS NAME	4 ADDRESS	5	6 PWS TYPE	POPULATION SERVED	VIOLATIONS IN LAST TWO YEARS	LAST SURVEY DATE	TYPE SOURCE	SELECTION KEY
XX / XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		X	XXXXXXXXX	XX	XX/XX/XX	XXXXXXX	X.XXXX
9 10	PWS-ID: XXXXXXX 11	12	XXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX 13	14 15	16	17	18	19	20	21
XX / XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		X	XXXXXXXXX	XX	XX/XX/XX	XXXXXXX	X.XXXX
	PWS-ID: XXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX							

EXHIBIT NO: SRVY.301 PAGE 1 OF 3

PROGRAM NO: SRVY020

TITLE: Schedule Report

*NOTE: Fields 7 & 8 are taken from the PROC option.

FIELD NO: 1 DATA ELEMENT NAME: SRVI-PROC-FROM-DATE
CATALOGUE NO: (PROC) DESCRIPTION: The beginning date of the scheduled Sanitary Survey period.

FIELD NO: 2 DATA ELEMENT NAME: SRVI-PROC-TO-DATE
CATALOGUE NO: (PROC) DESCRIPTION: The ending date of the scheduled Sanitary Survey period.

FIELD NO: 3 DATA ELEMENT NAME: SRVI-PROC-CAPACITY
CATALOGUE NO: (PROC) DESCRIPTION: The number of surveys which the surveying authority has the capability of performing within the designated time period.

FIELD NO: 4 DATA ELEMENT NAME: SRVI-PROC-TYPE-WT
CATALOGUE NO: (PROC) DESCRIPTION: The priority selection weight for the type of water supply.

FIELD NO: 5 DATA ELEMENT NAME: SRVI-PROC-POP-WT
CATALOGUE NO: (PROC) DESCRIPTION: The priority selection weight for the population served.

FIELD NO: 6 DATA ELEMENT NAME: SRVI-PROC-COMP-WT
CATALOGUE NO: (PROC) DESCRIPTION: The priority selection weight for violation history.

FIELD NO: 7 DATA ELEMENT NAME: SRVI-PROC-LAST-DATA-WT
DESCRIPTION: The priority selection weight for the date of the last Sanitary Survey.

FIELD NO: 8 DATA ELEMENT NAME: SRVI-PROC-SOURCE-WT
DESCRIPTION: The priority selection weight for the type of source water.

PROGRAM NO: SRVY020

TITLE: Schedule Report

FIELD NO: 9
CATALOGUE NO: 200
DATA ELEMENT NAME: PWF-STATE-REGION
DESCRIPTION: A code identifying an administrative region of the State.

FIELD NO: 10
CATALOGUE NO: 201
DATA ELEMENT NAME: PWF-STATE-DISTRICT
DESCRIPTION: A code identifying an administrative district within a region.

FIELD NO: 11
CATALOGUE NO: 145
DATA ELEMENT NAME: PWF-ID
DESCRIPTION: The number used to identify the Public Water System within the State.

FIELD NO: 12
CATALOGUE NO: 151
DATA ELEMENT NAME: PWF-MAILING-NAME
DESCRIPTION: The mailing name of the PWS.

FIELD NO: 13
CATALOGUE NO: 147
DATA ELEMENT NAME: PWF-MAILING-STREET
DESCRIPTION: The first line of the mailing address of the PWS.

FIELD NO: 13
CATALOGUE NO: 153
DATA ELEMENT NAME: PWF-MAILING-CITY
DESCRIPTION: The second line of the mailing address of the PWS.

FIELD NO: 14
CATALOGUE NO: 154
DATA ELEMENT NAME: PWF-MAILING-STATE
DESCRIPTION: The two character U.S. Postal Service abbreviation of the mailing address of the PWS.

FIELD NO: 15
CATALOGUE NO: 155
DATA ELEMENT NAME: PWF-MAILING-ZIP-CODE
DESCRIPTION: The U.S. Postal Service Zip Code of the mailing address of the PWS.

FIELD NO: 16
CATALOGUE NO: 182
DATA ELEMENT NAME: PWF-PLANT-TYPE
DESCRIPTION: A flag indicating whether this is a community or non-community PWS.

PROGRAM NO: SRVY020

TITLE: Schedule Report

FIELD NO: 17
CATALOGUE NO: 183
DATA ELEMENT NAME: PWF-PLANT-POPULATION-SERVED
DESCRIPTION: Total population obtaining water from the PWS.

FIELD NO: 18
DATA ELEMENT NAME: SRVI-S-VIOLATIONS
DESCRIPTION: The number of violations by this PWS within the last two years.

FIELD NO: 19
CATALOGUE NO: 192
DATA ELEMENT NAME: PWF-PLANT-LAST-SURVEY-DATE
DESCRIPTION: The date of the last Sanitary Survey of this PWS.

FIELD NO: 20
CATALOGUE NO: 244
DATA ELEMENT NAME: PWF-PLANT-SOURCE-CODE
DESCRIPTION: A code indicating the origin of water supplied by this PWS.

FIELD NO: 21
DATA ELEMENT NAME: SRVI-S-SELECTION-KEY
DESCRIPTION: A fractional number indicating the surveying priority of this PWS.

4. Error Messages and Remedial Actions

Error messages other than those from the Error Message Table (EMT) and the Standard Error Messages for Processing Options are listed in program number sequence, along with their remedial actions, if any.

a. SRYV010 - Survey Scheduling

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for PROC Records and SORT Records.

MESSAGE: ERROR - NO PW DATA ELEMENT TABLE WAS PROVIDED
REMEDIAL ACTION: Mount DET and rerun job.

MESSAGE: ERROR - NO CODE VALUE TABLE WAS PROVIDED
REMEDIAL ACTION: Mount CVT and rerun job.

MESSAGE: ERROR - PROC RECORDS NON-NUMERIC SELECTION WEIGHT
REMEDIAL ACTION: Check for keypunch errors, if none, return option to data entry for corrections. Obtain new options from data entry and use it to rerun job.

MESSAGE: ERROR - SELECTION WEIGHT SUM GREATER THAN TEN
REMEDIAL ACTION: Check for keypunch errors, if none, return to data entry for correction. Obtain new option from data entry and use it to rerun job.

MESSAGE: SELECTION WEIGHT IS BLANK, DEFAULT TO 0.0
REMEDIAL ACTION: None. This is used to notify the user that the default option was in effect when the job was run.

MESSAGE: ERROR - SURVEYING CAPACITY NON-NUMERIC AND NON-BLANK
REMEDIAL ACTION: Check for keypunch errors, if none, return to data entry for correction. Obtain new option from data entry and use it to rerun job.

MESSAGE: PRIORITY OPTION IS BLANK, DEFAULTING TO 1
REMEDIAL ACTION: None. This is used to notify the user that the default option was in effect when the job was run.

MESSAGE: ERROR - PRIORITY OPTION NOT 1, 2, 3, or BLANK
REMEDIAL ACTION: Check for keypunch errors, if none, return to data entry for correction. Obtain new option from data entry and use it to rerun job.

MESSAGE: ERROR - PRIORITY OPTION = 3, NO SURVEYING CAPACITY

REMEDIAL ACTION: Check for keypunch errors, if none, return to data entry for correction. Obtain new option from data entry and use it to rerun job.

MESSAGE: ERROR - PROC RECORD CONTAINS INVALID REGION ID
REMEDIAL ACTION: Check for keypunch errors, if none, return to data entry for correction. Obtain new option from data entry and use it to rerun job.

MESSAGE: ERROR - PROC RECORD CONTAINS INVALID DISTRICT ID
REMEDIAL ACTION: Check for keypunch errors, if none, return to data entry for correction. Obtain new option from data entry and use it to rerun job.

MESSAGE: SCHEDULE REPORT OPTION INVALID, DEFAULTING TO N
REMEDIAL ACTION: None. This is used to notify the user that the default option was in effect when the job was run.

MESSAGE: ERROR - PWF REPORT OPTION NOT 1, 2, 3, or BLANK
REMEDIAL ACTION: Check for keypunch errors, if none, return to data entry for correction. Obtain new option from data entry and use it to rerun job.

MESSAGE: PWF REPORT OPTION BLANK, DEFAULTING TO 1
REMEDIAL ACTION: None. This is used to notify the user that the default option was in effect when the job was run.

MESSAGE: PRIORITY REPORT OPTION INVALID, DEFAULTING TO N
REMEDIAL ACTION: None. This is used to notify the user that the default option was in effect when the job was run.

MESSAGE: ERROR - PRIORITY REPORT OPTION NOT 1, 2, 3 or blank
REMEDIAL ACTION: Check for keypunch errors, if none, return to data entry for correction. Obtain new option from data entry and use it to rerun job.

MESSAGE: ERROR - SORT PROCESSING RECORDS ARE REQUIRED

REMEDIAL ACTION: SORT options were not supplied for this run. Obtain SORT options from data entry and rerun job.

MESSAGE: ERROR - SCHEDULE REPORT OPTION NOT 1, 2, 3, or BLANK
REMEDIAL ACTION: Check for keypunch errors, if none, return to data entry for correction. Obtain new option from data entry and use it to rerun job.

MESSAGE: REGION VALUE ON PROC CARD WILL BE IGNORED
REMEDIAL ACTION: None. This is used to notify the user that the region specified in the PROC option was not used.

MESSAGE: DISTRICT VALUE ON PROC CARD WILL BE IGNORED
REMEDIAL ACTION: None. This is used to notify the user that the district specified in the PROC option was not used.

MESSAGE: ERROR - REGION AND/OR DISTRICT VALUES ARE REQUIRED
REMEDIAL ACTION: Check for keypunch errors, if none, return to data entry for correction. Obtain new option from data entry and use it to rerun job.

b. SRVY020 - Schedule Report

None

I. Operator and Mailing Subsystem (OPER)

1. General Description

The Operator and Mailing Subsystem (OPER) is an optional subsystem designed for two purposes: first, to provide management with data concerning certified operators, and second, to provide the state with the capability to manage a mailing distribution list for mailing material to local governments, cities, consulting engineers, etc. Since the mailing list and operator data requirements are similar, these two functions are combined in a single subsystem.

2. How to Enter Data

The following instructions are in narrative form to be used as an educational tool for a user who is new to MSIS. A quick reference guide can be found in the Data Entry Instruction Manual for each of the input documents relative to this subsystem. They are arranged numerically by exhibit number.

EXHIBIT NO: OPER.100
DESCRIPTION: This form is used with program module OPER010. It contains information for the creation of Operating and Mailing records.

-In all instances the ID number of the addressee.

-Card code "00" is only used when the user is creating a new record.

-Enter a "Y" if this is a new OMF record. Otherwise, leave blank.

-Card code "01" is used to add or update the O&M Type, Name and Street fields in an OMF Record.

-Enter a "O" if this Addressee is a certified operator. A list of O&M Types can be found in Appendix B of the Data Element Dictionary.

-Enter the name of the Addressee.

-Enter the street address of the Addressee. This must be the exact mailing address, normally including street name and number. This information must be entered.

-Card code "02" is used to add or update the City, State, Zip Code and Telephone Information in an OMF record.

-In all instances, the City name of the Addressee should be entered.

-In all instances, the alphabetic Postal State Code of the Addressee should be entered.

-In all instances the Postal Zip Code of the Addressee must be entered.

-Enter the Telephone Area Code of the Addressee.

-Enter the Telephone Number of the Addressee.

-Card Code "03" is used to add or update the Operator Information in an OMF record.

-Enter the Certified Operators Certificate Number.

-Enter the seven-digit Public Water System Identification Number.

-Enter the Operators Certification Class. Each class should have a valid number from 0 thru 9 entered.

-Enter the date on which the operator is due to be recertified. The date should be coded as the two-digit month under the "M", the two-digit day under the "D", and the last wo digits of the year under the "Y".

-In all instances enter the ID number of the Addressee.

-Card code "99" is only used when the user has an OMF record that is to be deleted.

-Enter a "Y" if the OMF record is to be deleted. Otherwise, leave blank.

EXHIBIT NO: OPER.101
DESCRIPTION: This form is used with program module OPER010. It contains all the Standard Error and Standard History options necessary for the entire job stream.

-All dates are entered in the same format: the two-digit month under the "M", the two-digit day under the "D", and the last two digits of the year under the "Y".

-The PROC date will be used in the report headings.

-There are two Standard Error Processing Options. The first is used to indicate whether or not a special output file of error records will be produced. To create it would be a beneficial to those users who have tape input transactions rather than cards. This file was designed to facilitate making corrections through data entry devices. The second option is used to determine whether the entire transactions should be printed on the error report or only those fields which are in error. The instructions are self-explanatory.

-The Standard History Processing Option is self-explanatory.

EXHIBIT NO: OPER.102
DESCRIPTION: This form is used with program module OPER020. It contains options that will be passed to other modules to create reports.

3. Output Reports

Each report created by this subsystem is explained in detail, field by field, telling from where the data was obtained and how it was manipulated, if at all. They are arranged numerically by exhibit number.

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OPERATOR REPORT PROGRAM

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT OPER.300

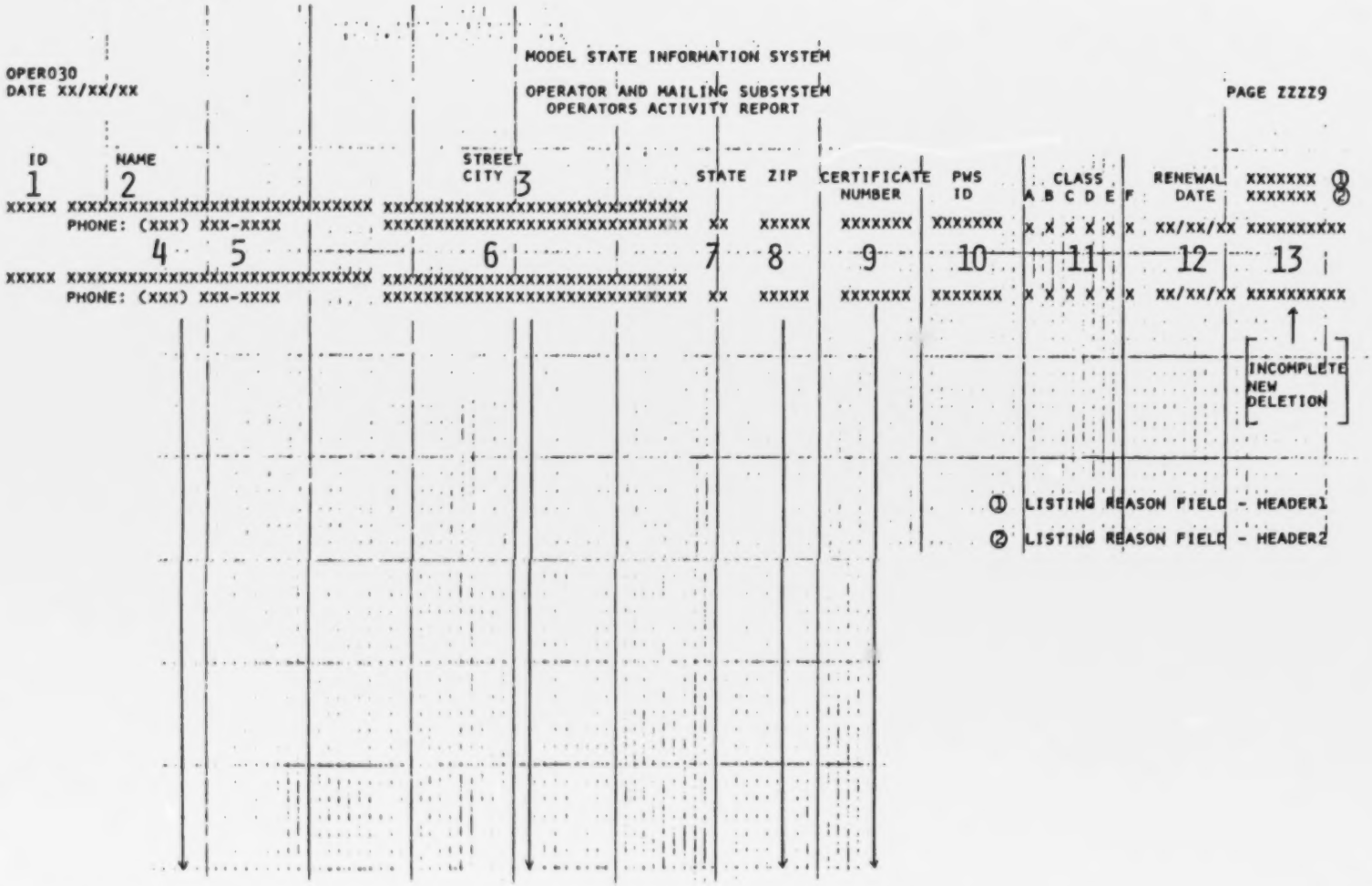


EXHIBIT NO: OPER.300 PAGE 1 OF 2

PROGRAM NO: OPER030

TITLE: Operator and Mailing Report

FIELD NO: 1 DATA ELEMENT NAME: OMF-ADDRESSEE-ID
CATALOGUE NO: 478 DESCRIPTION: A number identifying an addressee on the OMF.

FIELD NO: 2 DATA ELEMENT NAME: OMF-ADDRESSEE-NAME
CATALOGUE NO: 480 DESCRIPTION: Name of an operator or addressee.

FIELD NO: 3 DATA ELEMENT NAME: OMF-ADDRESSEE-STREET
CATALOGUE NO: 481 DESCRIPTION: First address line.

FIELD NO: 4 DATA ELEMENT NAME: OMF-AREA-CODE
CATALOGUE NO: 485 DESCRIPTION: Bell Telephone System Area Code of the addressee.

FIELD NO: 5 DATA ELEMENT NAME: OMF-PHONE-NUMBER
CATALOGUE NO: 486 DESCRIPTION: Phone number of the addressee.

FIELD NO: 6 DATA ELEMENT NAME: OMF-ADDRESSEE-CITY
CATALOGUE NO: 482 DESCRIPTION: Second address line.

FIELD NO: 7 DATA ELEMENT NAME: OMF-ADDRESSEE-STATE
CATALOGUE NO: 483 DESCRIPTION: U.S. Postal Service two character state abbreviation.

FIELD NO: 8 DATA ELEMENT NAME: OMF-ADDRESSEE-ZIP-CODE
CATALOGUE NO: 484 DESCRIPTION: U.S. Postal Service Zip Code for the addressee.

FIELD NO: 9 DATA ELEMENT NAME: OMF-CERTIFICATE-NUMBER
CATALOGUE NO: 488 DESCRIPTION: Number on the certificate awarded to a certified operator of a Public Water Supply.

PROGRAM NO: OPER030

TITLE: Operator and Mailing Report

FIELD NO: 10
CATALOGUE NO: 489
DATA ELEMENT NAME: OMF-PWS-ID
DESCRIPTION: The number used to identify the Public Water System within a State.

FIELD NO: 11
CATALOGUE NO: 490
DATA ELEMENT NAME: OMF-OPERATOR-CLASS
DESCRIPTION: One of six classes provided for a certified operator.

FIELD NO: 12
CATALOGUE NO: 491
DATA ELEMENT NAME: OMF-RENEWAL-DATE
DESCRIPTION: Date on which the renewal of certification should occur.

OPER030 1 OF 1
1/12/77

OPERATOR REPORT MODULE

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT OPER.301

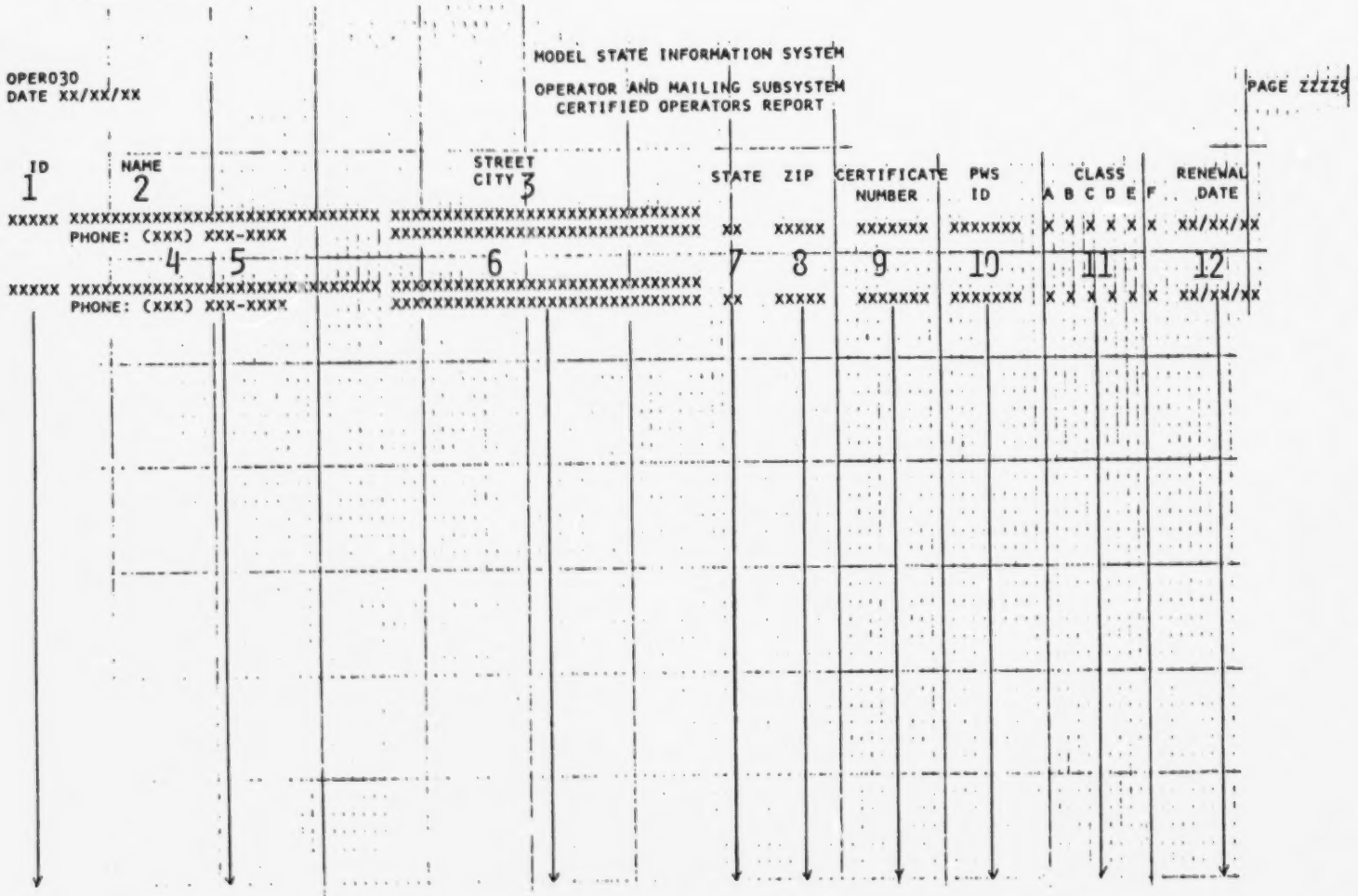


EXHIBIT NO: OPER.301 PAGE 1 OF 2

PROGRAM NO: OPER030

TITLE: Operator and Mailing Report

FIELD NO: 1
CATALOGUE NO: 478
DATA ELEMENT NAME: OMF-ADDRESSEE-ID
DESCRIPTION: A number identifying an addressee on the OMF.

FIELD NO: 2
CATALOGUE NO: 480
DATA ELEMENT NAME: OMF-ADDRESSEE-NAME
DESCRIPTION: Name of an operator or addressee.

FIELD NO: 3
CATALOGUE NO: 481
DATA ELEMENT NAME: OMF-ADDRESSEE-STREET
DESCRIPTION: First address line.

FIELD NO: 4
CATALOGUE NO: 485
DATA ELEMENT NAME: OMF-AREA-CODE
DESCRIPTION: Bell Telephone System Area Code of the addressee.

FIELD NO: 5
CATALOGUE NO: 486
DATA ELEMENT NAME: OMF-PHONE-NUMBER
DESCRIPTION: Phone number of the addressee.

FIELD NO: 6
CATALOGUE NO: 482
DATA ELEMENT NAME: OMF-ADDRESSEE-CITY
DESCRIPTION: Second address line.

FIELD NO: 7
CATALOGUE NO: 483
DATA ELEMENT NAME: OMF-ADDRESSEE-STATE
DESCRIPTION: U.S. Postal Service two character state abbreviation.

FIELD NO: 8
CATALOGUE NO: 484
DATA ELEMENT NAME: OMF-ADDRESSEE-ZIP-CODE
DESCRIPTION: U.S. Postal Service Zip Code for the addressee.

FIELD NO: 9
CATALOGUE NO: 488
DATA ELEMENT NAME: OMF-CERTIFICATE-NUMBER
DESCRIPTION: Number on the certificate awarded to a certified operator of a Public Water Supply.

PROGRAM NO: OPER030

TITLE: Operator and Mailing Report

FIELD NO: 10
CATALOGUE NO: 489
DATA ELEMENT NAME: OMF-PWS-ID
DESCRIPTION: The number used to identify the Public Water System within a State.

FIELD NO: 11
CATALOGUE NO: 490
DATA ELEMENT NAME: OMF-OPERATOR-CLASS
DESCRIPTION: One of six classes provided for a certified operator.

FIELD NO: 12
CATALOGUE NO: 491
DATA ELEMENT NAME: OMF-RENEWAL-DATE
DESCRIPTION: Date on which the renewal of certification should occur.

OPER040 1 OF 1
1/12/77

DISTRIBUTION REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT OPER.302

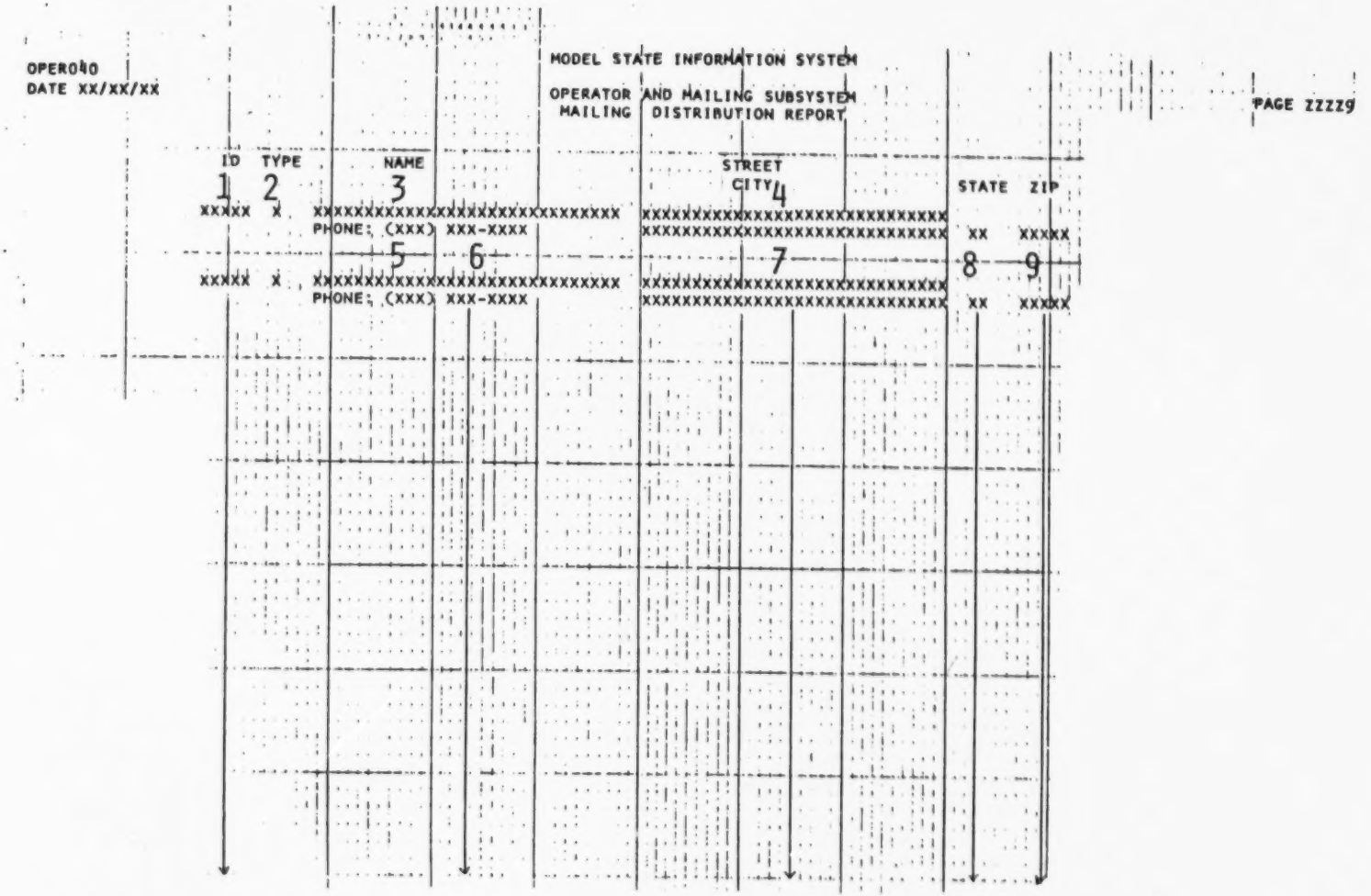


EXHIBIT NO: OPER.302 PAGE 1 OF 1

PROGRAM NO: OPER040

TITLE: Distribution Report

FIELD NO: 1
CATALOGUE NO: 478
DATA ELEMENT NAME: OMF-ADDRESSEE-ID
DESCRIPTION: A number identifying an addressee on the OMF.

FIELD NO: 2
CATALOGUE NO: 479
DATA ELEMENT NAME: OMF-ADDRESSEE-TYPE
DESCRIPTION: A code describing the type of addressee.

FIELD NO: 3
CATALOGUE NO: 480
DATA ELEMENT NAME: OMF-ADDRESSEE-NAME
DESCRIPTION: Name of an operator or addressee.

FIELD NO: 4
CATALOGUE NO: 481
DATA ELEMENT NAME: OMF-ADDRESSEE-STREET
DESCRIPTION: First address line.

FIELD NO: 5
CATALOGUE NO: 485
DATA ELEMENT NAME: OMF-AREA-CODE
DESCRIPTION: Bell Telephone System Area Code of the addressee.

FIELD NO: 6
CATALOGUE NO: 486
DATA ELEMENT NAME: OMF-PHONE-NUMBER
DESCRIPTION: Phone number of the addressee.

FIELD NO: 7
CATALOGUE NO: 482
DATA ELEMENT NAME: OMF-ADDRESSEE-CITY
DESCRIPTION: Second address line.

FIELD NO: 8
CATALOGUE NO: 483
DATA ELEMENT NAME: OMF-ADDRESSEE-STATE
DESCRIPTION: U.S. Postal Service two character state abbreviation code.

FIELD NO: 9
CATALOGUE NO: 484
DATA ELEMENT NAME: OMF-ADDRESSEE-ZIP-CODE
DESCRIPTION: U.S. Postal Service Zip Code for the addressee.

DISTRIBUTION REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT 'OPER.303

OPER040
DATE XX/XX/XX

MODEL STATE INFORMATION SYSTEM

OPERATOR AND MAILING SUBSYSTEM
ADDRESSEES ACTIVITY REPORT

PAGE ZZZZ9

ID 1	TYPE 2	NAME 3	STREET CITY 4	STATE 8	ZIP 9	XXXXXXX ① XXXXXXX ② 10
XXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXX PHONE: (XXX) XXX-XXXX 5 6	XXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXX 7	XX	XXXXX	XXXXXXXXXX
XXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXX PHONE: (XXX) XXX-XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXX	XX	XXXXX	XXXXXXXXXX

INCOMPLETE
NEW
DELETION

① LISTING REASON FIELD - HEADER 1

② LISTING REASON FIELD - HEADER 2

EXHIBIT NO: OPER.303 PAGE 1 OF 1

PROGRAM NO: OPER040

TITLE: Distribution Report

FIELD NO: 1 CATALOGUE NO: 478	DATA ELEMENT NAME: OMF-ADDRESSEE-ID DESCRIPTION:	A number identifying an addressee on the OMF.
FIELD NO: 2 CATALOGUE NO: 479	DATA ELEMENT NAME: OMF-ADDRESSEE-TYPE DESCRIPTION:	A code describing the type of addressee.
FIELD NO: 3 CATALOGUE NO: 480	DATA ELEMENT NAME: OMF-ADDRESSEE-NAME DESCRIPTION:	Name of an operator or addressee.
FIELD NO: 4 CATALOGUE NO: 481	DATA ELEMENT NAME: OMF-ADDRESSEE-STREET DESCRIPTION:	First address line.
FIELD NO: 5 CATALOGUE NO: 485	DATA ELEMENT NAME: OMF-AREA-CODE DESCRIPTION:	Bell Telephone System Area Code of the addressee.
FIELD NO: 6 CATALOGUE NO: 486	DATA ELEMENT NAME: OMF-PHONE-NUMBER DESCRIPTION:	Phone number of the addressee.
FIELD NO: 7 CATALOGUE NO: 482	DATA ELEMENT NAME: OMF-ADDRESSEE-CITY DESCRIPTION:	Second address line.
FIELD NO: 8 CATALOGUE NO: 483	DATA ELEMENT NAME: OMF-ADDRESSEE-STATE DESCRIPTION:	U.S. Postal Service two character state abbreviation code.
FIELD NO: 9 CATALOGUE NO: 484	DATA ELEMENT NAME: OMF-ADDRESSEE-ZIP-CODE DESCRIPTION:	U.S. Postal Service Zip Code for the addressee.

OPER050 1 OF 1
1/12/77

MAILING LABEL MODULE

. SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT OPER.304

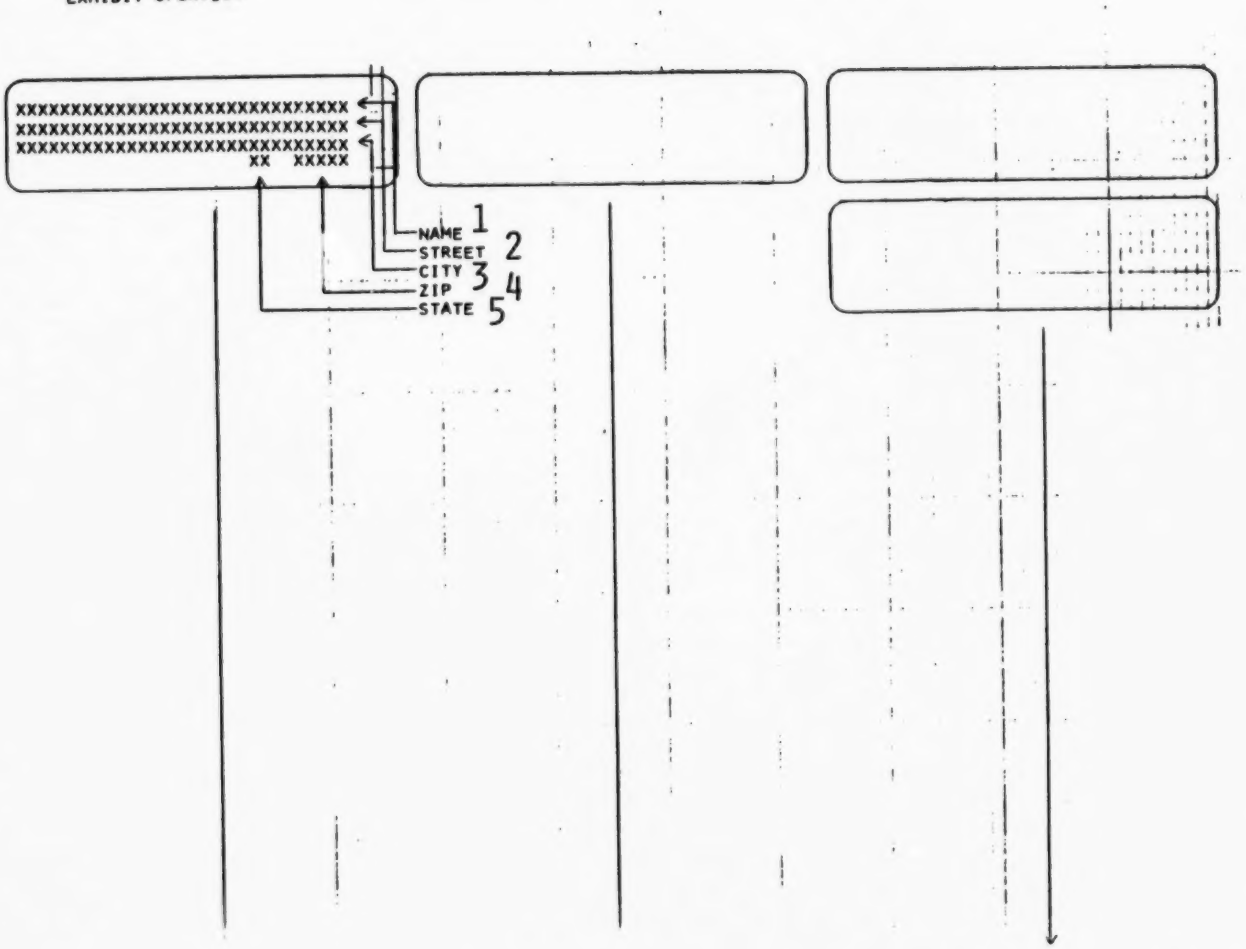


EXHIBIT NO: OPER.304 PAGE 1 OF 1

PROGRAM NO: OPER050

TITLE: Mailing Labels

FIELD NO: 1
CATALOGUE NO: 480
DATA ELEMENT NAME: OMF-ADDRESSEE-NAME
DESCRIPTION: Name of an operator or addressee.

FIELD NO: 2
CATALOGUE NO: 481
DATA ELEMENT NAME: OMF-ADDRESSEE-CITY
DESCRIPTION: First address line.

FIELD NO: 3
CATALOGUE NO: 482
DATA ELEMENT NAME: OMF-ADDRESSEE-CITY
DESCRIPTION: Second address line.

FIELD NO: 4
CATALOGUE NO: 483
DATA ELEMENT NAME: OMF-ADDRESSEE-STATE
DESCRIPTION: U.S. Postal Service two character state abbreviation.

FIELD NO: 5
CATALOGUE NO: 484
DATA ELEMENT NAME: OMF-ADDRESSEE-ZIP-CODE
DESCRIPTION: U.S. Postal Service Zip Code for the addressee.

4. Error Messages and Remedial Actions

Error messages other than those from the Error Message Table (EMT) and the Standard Error Messages for Processing Options are listed in program number sequence, along with their remedial actions, if any.

a. OPER010 - OMF Data Entry & Update

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for PROC Records.

MESSAGE: ERROR - OM CODE VALUE TABLE EXCEEDS LIMIT
REMEDIAL ACTION: Notify programming that the CVT exceeds program capacity and that the program will have to be changed to accommodate a larger CVT.

MESSAGE: ERROR - MS CODE VALUE TABLE EXCEEDS LIMIT
REMEDIAL ACTION: Notify programming that the CVT exceeds program capacity and that the program will have to be changed to accommodate a larger CVT.

MESSAGE: ERROR - NO OM CODE VALUE TABLE WAS PROVIDED
REMEDIAL ACTION: Mount CVT and rerun job.

MESSAGE: ERROR - NO MS CODE VALUE TABLE WAS PROVIDED
REMEDIAL ACTION: Mount CVT and rerun job.

b. OPER020 - OMF Selection

Any error messages that do not appear below can be found in Standard Error Messages and Remedial Actions for PROC Records and for SEL1 and SEL2 Records.

MESSAGE: ERROR - NO OM DATA ELEMENT TABLE WAS PROVIDED
REMEDIAL ACTION: Mount DET and rerun job.

MESSAGE: NUMBER OF LABELS NOT NUMERIC, DEFAULTING TO 1
REMEDIAL ACTION: None. This is used to notify the user that the default option was in effect when the job was run.

MESSAGE: OPERATORS REPORT OPTION INVALID, DEFAULTING TO N
REMEDIAL ACTION: None. This is used to notify the user that the default option was in effect when the job was run. No Operators Report will be produced.

MESSAGE: DISTRIBUTION REPT. OPTION INVALID, DEFAULTING TO N
REMEDIAL ACTION: None. This is used to notify the user that the default option was in effect when the job was run. No Distribution Report will be produced.

MESSAGE: MAILING LBL. REPT. OPTION INVALID, DEFAULTING TO N
REMEDIAL ACTION: None. This is used to notify the user that the default option was in effect when the job was run. No Mailing Labels will be produced.

c. OPER030 - Operator Report

None

d. OPER040 - Distribution Report

None

e. OPER050 - Mailing Labels

None

XI. Appendix

A. Data Entry Instructions Form Description

The "Data Entry Instructions" form provides instructions on how to fill out data input forms. The fields on this form contain the following information:

1. SOURCE DOCUMENT NAME: contains the title of the input form.

2 EXHIBIT: contains the input form number which is being explained.

3 PURPOSE: contains a short description of the purpose of the input form.

4 LEGEND: contains the abbreviations and definitions used in "Additional Instructions."

5 CARD COL. FROM/TO: contains the card columns into which this information is entered.

6 INPUT DOCUMENT NAME: contains the heading as it appears in whole or part on the input form.

7 DESCRIPTION: contains instructions for entering this information.

8 ADDITIONAL INSTRUCTIONS: are presented as further clarification. The abbreviations utilized are explained in "LEGEND" above.

B. ACRONYMS

Abbreviation	Meaning
CVT	Code Value Table
CSF	Contaminant Schedule File
DET	Data Element Table
DVF	Deviations File
EAF	Enforcement Actions File
EMT	Error Message Table
ENAC	Enforcement Actions Subsystem
FEDR	Federal Reporting Subsystem
LBT	Laboratory Table
MCL	Maximum Contaminant Level
MSIS	MSIS Standard Processing Subsystem; or Model State Information System
NIF	National Inventory File
NIPDWR	National Interim Primary Drinking Water Regulations
OEF	Optional Error File
OMF	Operator and Mailing File
OPER	Operator and Mailing Subsystem
PHF	Public History File
PSF	Periodic Sample and Analysis File
PWF	Public Water File
PWS	Public Water System
PWSI	Public Water System Inventory Subsystem
PWT	Public Water Table
REGS	Regulations Subsystem
RGF	Regulations File

SAF	Sample and Analysis File
SDWA	Safe Drinking Water Act
SEF	MSIS Standard Error File
SHF	MSIS Standard History File
SRVY	Sanitary Survey Subsystem
VAEX	Variances and Exemptions Subsystem
VEF	Variances and Exemptions File
VIF	Violations File
WAQC	Water Quality Compliance Subsystem

C. Glossary

Terms are included in this glossary only if their meaning differs from those found in a standard English language dictionary.

Analysis:

The separation of any abstract entity or material into its constituant elements, such as chemical-intentionally produced decomposition or separation of materials into their ingredients to find their kind or quality.

Analysis Method:

The method or technique utilized to obtain analysis results.

Analytical Techniques:

The methods used to determine the components of a substance, especially raw water.

Batch Processing:

A procedure in which a number of transactions, for example on keypunched cards, are accumulated before being processed together.

Check Sampling:

The act of acquiring additional quantities of water for analysis over and above the regular samples due to the suspicion of violating maximum contaminant levels.

Code:

A system used for brevity of communication in which arbitrarily chosen words, letters, or symbols are assigned definite meanings.

Computer:

A machine which accepts input data, processes it, and gives output data.

Computer Program:

A sequence of computer-readable instructions used in conjunction with appropriate data to perform specified logical tasks.

Correction:

Additions, deletions, or changes to a computer file.

Course:

All content taught in one individual MSIS training program volume. A course is subdivided into units.

Data:

Raw facts or statistics which alone have little or no meaning, but as a group allow some meaningful relationships to be drawn.

Data Element:

An identifiable item of information within a record. See the Data Element Dictionary for all data elements used in MSIS.

Data Processing:

The act of manipulating information to obtain a desired result, especially with the use of a computer.

Economical:

Of or pertaining to the financial reasons for granting variances and exemptions.

Enforcement:

The act of creating and maintaining compliance using coercive methods.

Enforcement Action:

An action intended to generate compliance.

Exemption:

The right to ignore a requirement with respect to a maximum contaminant level or treatment technique due to compelling factors.

Field:

See data element.

File:

A collection of records systematically arranged to facilitate quick reference; may be stored on magnetic tape or magnetic disk.

Goal:

A general achievement toward which effort is directed.

Gross Alpha:

A group of substances which emit Alpha particle radiation.

Gross Beta:

A group of substances which emit Beta particle radiation.

Hardware:

The physical equipment in a data processing system (contrasted with software).

Input:

Information which is specially prepared for acceptance by computer programs. Usually written down on special forms, then put into machine-readable form by, for example, keypunching.

Internal:

Data processing occurring within the computer automatically according to instructions from computer programs.

Information:

Data that has been processed to obtain specific results which increase knowledge of the recipient and is used as the basis for decision making.

Inorganic:

Of or pertaining to substances that are not hydrocarbons or their derivatives.

Integrity:

Presumed reliability of data.

Inventory:

A detailed, descriptive list, for example, of Public Water Systems.

Law:

The Safe Drinking Water Act, especially as expanded by the related EPA regulations.

Magnetic disk:

A device which stores data on the magnetizable surfaces of one or more rotating disks, which look like a stack of phonograph records.

Magnetic tape:

A device which stores data on the magnetizable surface of a long strip of tape (the tape is typically 1 inch wide and 2400 feet long).

Maintain:

Actions taken to ensure up-to-date computer files.

Management Information System:

An organized method of maintaining facts pertinent to the governing of the operations of an organization.

Model State Information System:

(MSIS), a batch computer system designed to (1) maintain records on public water systems and the quality of the water they supply, and (2) prepare reports.

Monitor:

The act of (1) a PWS observing and checking water quality or (2) a State observing and checking PWS's.

National Inventory File:

A computerized list of many Public Water Systems in the United States; previously used to monitor Public Water Systems quality.

Objective:

A specific achievement that efforts are intended to attain.

Online Processing:

A procedure for inputting data, often by typewriter terminal, into the computer whenever needed for immediate data processing.

Operator:

One who runs a Public Water System.

Organic:

Of or pertaining to substances that are hydrocarbons or their derivatives.

Output:

Any information passed from the computer.

Primacy:

Primary enforcement responsibility for carrying out the Safe Drinking Water Act of 1974.

Public Water System:

(PWS), a set of components for the provision of piped water to persons for human consumption, if such facility has at least fifteen service connections or regularly serves at least twenty-five individuals.

Purge:

To remove from a computer file those items no longer desired.

Raw Water:

Water at the source before any treatment.

Record:

A logical grcup of data elements.

Regulation:

A rule created by EPA within the guidelines established by the SDWA and having the same authority.

Report:

Information formatted by the computer in either human-readable form (such as a printed or microfiche report) or machine-readable form (such as a magnetic tape).

Sample:

A portion of the whole to represent the whole, especially water.

Sanitary Survey:

An on-site review of the water source, facilities, equipment, operation, and maintenance of a public water system for the purpose of evaluating the adequacy of such source for producing and distributing safe drinking water.

Selection Process:

The method used by MSIS for selecting information from a computer file for use in a report. Many different criteria can be used in the selection of the data.

Software:

The computer programs required for the computer to work.

Subsystem:

A subset of the MSIS computer system. There are nine MSIS subsystems.

System:

A method or methods of accomplishing a function or functions, especially with a computer.

Table:

A computer file of brief information usually set up in logical relationships to permit quick access, often on magnetic disk.

Turnaround Document:

A form containing computer-printed information which needs additicnal information written on it; called "turnaround" since it is both an output and an input.

Unit:

A subset of teaching material within a course.

Update:

To bring up to date; revise with corrections and additions.

Variance:

The right to deviate from an applicable national drinking water regulation because of characteristics of the raw water source which are available and which cannot be corrected by available means.

Violation:

Infringement or infraction of the law.

D. References

The following books and articles were used in the process of developing the Model State Information System (MSIS):

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2. Common Business Oriented Language, COBOL, (Washington, D.C.: U.S. Department of Commerce National Bureau of Standards, Federal Information Processing Standards (FIPS) Publication 21, March 15, 1972)

3. "Counties and County Equivalents of the States of the United States", Federal General Data Standard Representations and Codes, (Washington, D.C.: U.S. Department of Commerce National Bureau of Standards, Federal Information Processing Standards (FIPS) Publication 6-1, June 15, 1970)

4. "Documentation Standards and Requirements, Chapter 6",
"Appendix C, System/Subsystem Design Specification Guidelines",
"Appendix D, User Manual Standards",
"Appendix E, Systems Maintenance Documentation Standards",
Automatic Data Processing Manual, (Washington, D.C.: U.S. Environmental Protection Agency, March 31, 1975)

5. "Environmental Protection Agency, Drinking Water Regulations, Radionuclides," Federal Register, 41, no. 133, (July 9, 1976)

6. "Environmental Protection Agency, Interim Primary Drinking Water Regulations, Proposed Maximum Contaminant Levels for Radioactivity," Federal Register, 40, no. 158, (August 14, 1975)

7. "Environmental Protection Agency, State Public Water System Supervision Program Grants and National Interim Primary Drinking Water Regulations Implementation," Federal Register, 41, no. 13, (January 20, 1976)

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9. Feasibility Study for Development and Implementation of a Model State Information System for EPA's Safe Drinking Water Program, (American Management Systems, Inc., June 15, 1976)

10. Flowchart Symbols and Their Usage in Information Processing, (Washington, D.C.: U.S. Department of Commerce National Bureau of Standards, Federal Information Processing Standards (FIPS) Publication 24, June 30, 1973)

11. Implementation Plan for the Model State Information System (MSIS) Draft Report, (Cincinnati: SouthWestern Ohio Regioral Computer Center, University of Cincinnati, May 10, 1976)

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13. Interpretation Procedures for Federal Standard COBOL, (Washington, D.C.: U.S. Department of Commerce National Bureau of Standards, Federal Information Processing Standards (FIPS) Publication 29, June 30, 1974)

14. Introduction to the Model State Information System (MSIS), (American Management Systems, Inc., June 15, 1976)

15. "Safe Drinking Water Act," Laws of 93rd Congress - Second Session, (Washington, D.C.: Senate and House of Representatives of the United States of America, 1974)

16. Software Summary for Describing Computer Programs and Automated Data Systems, (Washington, D.C.: U.S. Department of Commerce National Bureau of Standards, Federal INformation Processing Standards (FIPS) Publication 30, June 30, 1974)

17. "Volume I: Subsystem Description, Definition of System Requirements," Model State Information System for the Safe Drinking Water Program, (American Management Systems, Inc., June 15, 1976)

18. "Volume II: Exhibits, Definition of System Requirements," Model State Information System for the Safe Drinking Water Program, (American Management Systems, Inc., June 15, 1976)

19. "Volume III: Data Element Dictionary, Definition of System Requirements," Model State Information System for the Safe Drinking Water Program, (American Management Systems, Inc., June 15, 1976)